

# Chapter 3

## County of Sacramento Stormwater Quality Improvement Plan

### 3.1 Overview

This chapter presents the Sacramento County Stormwater Quality Improvement Plan (SQIP) for the portion of the permit area in unincorporated Sacramento County. Other permittees' SQIPs are presented separately in Chapters 4–9.

This chapter describes the County of Sacramento's SQIP. The County's activities described in this chapter are conducted **in addition** to those the County implements jointly with the other Permittees (see Chapter 2).

### Characteristics of Sacramento County

Sacramento County was incorporated in 1850 as one of the original 27 counties of the State of California. The County is the major component of the Sacramento Metropolitan Statistical Area which includes Sacramento, El Dorado, and Placer Counties.

Sacramento County encompasses approximately 994 square miles in the middle of the 400-mile long Central Valley, which is California's prime agricultural region. The County is bordered by Contra Costa and San Joaquin Counties on the south, Amador and El Dorado Counties on the east, Placer and Sutter Counties on the north, and Yolo and Solano Counties on the west. Sacramento County extends from the low delta lands between the Sacramento and San Joaquin rivers north to about ten miles beyond the State Capitol and east to the foothills of the Sierra Nevada Mountains. The southernmost portion of Sacramento County has direct access to the San Francisco Bay. The County includes the cities of Sacramento, Elk Grove, Rancho Cordova, Galt, Citrus Heights, Folsom and Isleton.

Most of the county is at an elevation close to sea level, with some areas below sea level. Hills along the eastern boundary rise to several hundred feet. Major watercourses in the county include the American River, Sacramento River and Dry Creek, a tributary of the Sacramento River. See chapter 1 for a detailed discussion on Sacramento County watersheds and waterways.

Additional County facts include:

- experiences an average annual rainfall of 19.6 inches
- includes 14 Regional Parks Districts
- boasts 6 million trees (the City of Sacramento has been called the “City of Trees”)
- contains 19 major public & private colleges and universities and 16 public school districts

As discussed in Chapter 1, the stormwater permit does not apply to all areas within Sacramento County. Rather, it applies to all the land inside the Sacramento County Urban Service Area boundary, as well as the City of Galt and the Sacramento International Airport, as shown on Figure 1.2-1. Land within the Urban Service Area includes the cities of Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Sacramento, and unincorporated Sacramento County. The City of Isleton is not included. The unincorporated portion (the area addressed by this County SQIP) is 232 square miles.

The County has a charter form of government. It is governed by a five-member *Board of Supervisors* elected on a non-partisan basis to serve four-year terms. Each is elected from one of the five supervisorial districts of the County. District boundaries are adjusted after every federal census to equalize district population.

Other elected officials include the *Assessor*, *District Attorney* and *Sheriff*. A *County Executive* appointed by the Board of Supervisors runs the day-to-day business of the County.

Three agencies and a number of departments within these agencies support the delivery of countywide services to the unincorporated County and several cities. Figure 3.1-1 illustrates the County's organizational structure.

## **SQIP Organization**

The following describes the organization of the County SQIP in this chapter:

### **Section 3.2 — Program Management**

This section describes the activities conducted by the County (such as legal authority, funding, inter and intra-agency coordination and training) related to implementation of the Stormwater Program and compliance with the stormwater permit.

### **Section 3.3 — Construction Element**

This section describes activities designed to prevent sediment and other construction-related pollutants from entering the storm drain system and local creeks and rivers.

### **Section 3.4 — Commercial/Industrial Element**

This section describes activities designed to reduce the discharge of pollutants in runoff from commercial and industrial sites and eliminate non-stormwater discharges associated with commercial and industrial activities.

### **Section 3.5 — Municipal Operations Element**

This section describes activities designed to control stormwater pollution resulting from the operation and maintenance of County-owned facilities.

### **Section 3.6 — Illicit Discharge Element**

This section describes activities designed to investigate and eliminate illicit (illegal) discharges and connections to the storm drain system and local creeks and rivers.

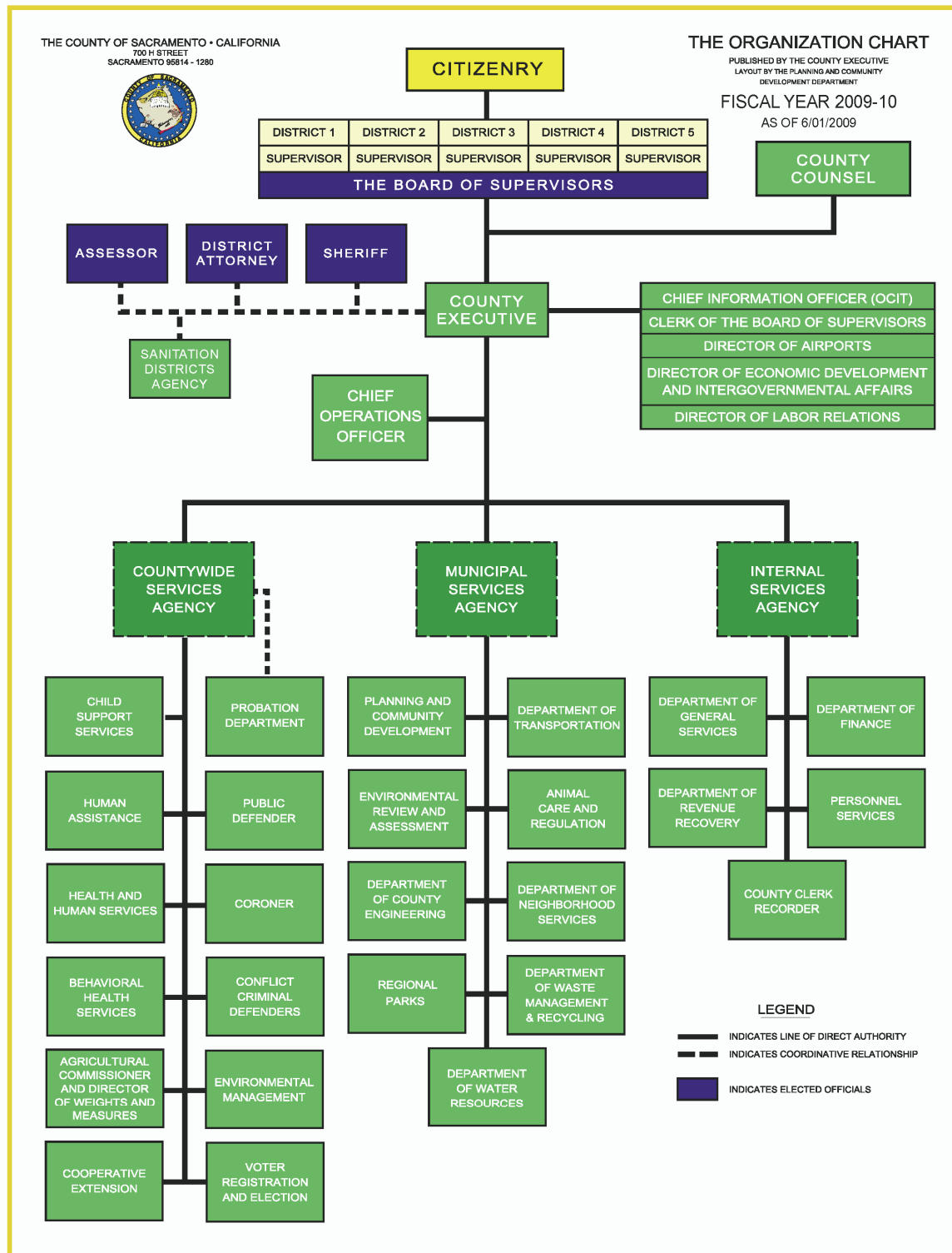
### **Section 3.7 — Public Outreach Element**

This section describes activities designed to raise awareness and foster community stewardship to promote pollution prevention and protect local creeks and rivers.

### **Section 3.8 — New Development Element**

This section describes activities designed to reduce pollutants in runoff from new development and significant redevelopment projects.

**Figure 3.1-1 — Sacramento County Organization Chart**



## **3.2 Program Management**

### **Introduction**

This section of the SQIP describes activities that will be conducted by the County during the 2008–13 permit term to administer and manage the County’s Stormwater Quality Program (County Program) to ensure continued compliance with the stormwater permit. In addition to managing designated stormwater personnel assigned to conduct the activities and prepare the compliance deliverables described in this plan, the County’s Program Manager coordinates with internal and external groups, ensures that adequate funding and legal authority is in place, and confirms that annual employee training is conducted.

Table 3.2-3 at the end of this section provides a summary of major tasks and associated five-year implementation schedule.

### **County Program Organization and Staffing**

The County Program is administered and managed by the Stormwater Quality Section within the Municipal Services Agency’s Department of Water Resources (see Figure 3.1-1 of the previous section, Sacramento County Organizational Chart). The Department Director provides oversight and certifies all compliance deliverables on behalf of the County.

Eleven qualified full-time equivalent (FTE) staff members are assigned to work on the program within the Department of Water Resources Stormwater Quality Section as listed below:

- Stormwater Program Manager (1 FTE)
- Associate Civil Engineers (4 FTE)
- Principal Engineering Technician (1 FTE)
- Engineering Technician (1 FTE)
- Environmental Specialists (4 FTE)

In addition, Table 3.2-1 lists the various other county agencies and departments that provide staff and resources to implement the County Program.

The County Program Manager keeps senior managers apprised of the County Program and the role of their staff in ensuring compliance with the stormwater permit. The County retains consultants to assist staff with specialized technical tasks such as monitoring, engineering design standards and regulatory and legal assistance.

**Table 3.2-1**  
**County of Sacramento Responsibilities for Compliance**  
**with Sacramento NPDES Municipal Stormwater Permit**

Program Element	Agency/Department/(Group)	Responsibility
Program Management (Section 3.2)	<b>Municipal Services Agency</b> Dept. of Water Resources (Stormwater Quality Section)	Administers and manages the County Stormwater Quality Program on behalf of the County, provides liaison with the Regional Water Board, prepares/submits compliance reports, and provides annual refresher training to affected County staff. Also conducts many of the Program activities.
	<b>County Executive</b>	Oversees County-wide compliance with stormwater permit and authorizes County staff to enforce Stormwater Ordinance.
	<b>County Counsel</b>	Conducts legal reviews, prepares legal certifications, and oversees revisions to ordinances, codes, and other standards.
Construction (Section 3.3)	<b>Municipal Services Agency</b> Dept. of County Engineering and Administration (Land Development and Site Improvement Review (LDSIR))	Issues grading permits and checks for NOI, for all sites subject to State General Construction Permit.
	<b>Municipal Services Agency</b> Dept. of Water Resources (Drainage Development and Stormwater Quality Sections)	Reviews submitted erosion and sediment control plans and SWPPPs.
	<b>Municipal Services Agency</b> Dept. of County Engineering (Construction Management and Inspection Division- Building Inspection)	Provides inspection services during the building phase of construction of private developer facilities. Designated stormwater inspectors provide oversight of contractor erosion and sediment control, construction site housekeeping practices.
	<b>Municipal Services Agency</b> Dept. of County Engineering (Construction Management and Inspection Division)	Provides inspection services during grading phase and installation of public infrastructure (utilities, roads, sidewalks, detention basins, and channels). Stormwater inspection responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.
	<b>Municipal Services Agency</b> Dept. of Water Resources (Drainage Design)	Designs new storm drain facilities and provides oversight during construction activities, including approval of change orders and SWPPP amendments. Responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.
	<b>Municipal Services Agency</b> Dept. of Water Resources (Water Supply Planning and Engineering)	Designs, and oversees construction and repair/replacement of all water supply infrastructure, including associated wells, pumps and treatment facilities. Responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.
	<b>Municipal Services Agency</b> Dept. of Transportation	Oversees construction and repair/replacement of all street and highway improvements, including associated lighting, landscaping and signals. Responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.

<b>Program Element</b>	<b>Agency/Department/(Group)</b>	<b>Responsibility</b>
Commercial/ Industrial (Section 3.4)	<b>Countywide Services Agency</b> Environmental Management Department, Environmental Health and Hazardous Materials Divisions (HMD)	Conducts compliance inspections for the nine required industries. During inspections, considers exposure of pollutants to contact with stormwater, prohibited non-stormwater discharges, illicit connections and other conditions that may be violations of local stormwater ordinances and may conduct progressive enforcement to obtain compliance.
	<b>Municipal Services Agency</b> Department of Water Quality	Issues discharge permits for the sanitary sewer system to all industrial users. Conducts plan review and issues permits for connections to the sanitary sewer.
	<b>Municipal Services Agency</b> Department of Water Resources (Stormwater Quality Section)	Conducts complaint-based inspections and enforcement related to reported stormwater pollution issues associated with business activities not covered under the EMD Commercial/ Industrial Stormwater Inspection Program (CISCP). Coordinates with EMD on implementation of CISCP. Conducts business outreach activities businesses in unincorporated Sacramento County.
Municipal Operations (Section 3.5)	<b>Municipal Services Agency</b> Dept. of Water Resources (Drainage Maintenance Engineering Section)	Maintains stormwater quality treatment facilities and the storm drain system owned and/or operated by the County in a manner that protects water quality.
	<b>Municipal Services Agency</b> Dept. of Transportation	Maintains all street and highway improvements, including lighting, landscaping, and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.
	<b>Municipal Services Agency</b> Department of General Services	Manages County-owned buildings, parking lots, and other facilities. Responsible for ensuring that activities at these facilities do not contribute to stormwater pollution.
	<b>Municipal Services Agency</b> Regional Parks	Maintains county parks and recreational facilities in a manner which considers stormwater quality impacts.
	<b>Municipal Services Agency</b> Department of Waste Management and Recycling	Provides solid waste management services for residents and businesses in Sacramento County. Program emphasis is placed on waste prevention, recycling, and composting that support the stormwater quality program.
	<b>Municipal Services Agency</b> Department of Water Resources (Stormwater Quality Section)	Conducts training to targeted County employees and ensures that County activities are in compliance with the stormwater permit.
	<b>Internal Services Agency</b> Department of General Services (Fleet Services Division)	Maintains a fleet of heavy-duty vehicles, heavy equipment, light cars, and trucks for use by County Agencies and Departments. Services include maintaining, repairing, fueling, washing, and storing vehicles and equipment. Responsible for ensuring that stormwater quality controls/BMPs are incorporated where required. Some facilities may require coverage under State General Industrial stormwater permit.
	<b>Sacramento County Airport System</b>	Maintains Sacramento International Airport, Mather Airport, Executive Airport, and Franklin Field.

<b>Program Element</b>	<b>Agency/Department/(Group)</b>	<b>Responsibility</b>
Illicit Discharges (Section 3.6)	<b>Countywide Services Agency</b> Environmental Management Department , Hazardous Materials Division (HMD)	Responds to hazardous materials spills that may impact stormwater quality and receiving waters, including clean-up, reporting, and referral of problems.
	<b>Municipal Services Agency</b> Department of Water Resources (Drainage Maintenance Engineering)	Conducts ongoing field screening for illicit discharges and connections through routine maintenance activities being conducted by field crews. Responds to non-hazardous spills outside of the right of way, including cleanup and proper disposal.
	<b>Municipal Services Agency</b> Dept. of Transportation	Responds to hazardous and non-hazardous spills in the right of way, including cleanup and proper disposal.
	<b>Municipal Services Agency</b> Department of Water Resources (Stormwater Quality Section)	Conducts investigations and enforcement of the Stormwater Ordinance to eliminate illicit discharges/connections detected by way of reports from the public and/or County maintenance crews. Distributes educational materials to the public. Maintains database to track investigations and enforcement conducted by Stormwater Quality staff. Provides County employee training to field screening and illicit discharge response crews annually.
Public Outreach (Section 2.6)	<b>Municipal Services Agency</b> Department of Water Resources (Stormwater Quality Section and Public Information staff )	Conducts all public outreach required by the stormwater permit, including working with the City of Sacramento and other permittees to conduct a regional media campaign to address all residents in the County. Oversees development and periodic updating of public education materials such as brochures.
New Development (Section 3.8)	<b>Municipal Services Agency</b> Planning and Community Development Department	Processes applications for private developments. Implements General Plan and Zoning code. Routes plans to Department of Water Resources to ensure that stormwater quality controls are incorporated as required. Participates in creation of new stormwater quality standards, including review, evaluation, and modification of County policies, codes, and standards.
	<b>Municipal Services Agency</b> Department of Environmental Review and Assessment	Implements provisions of the California Environmental Quality Act (CEQA) as they apply to Sacramento County, including thorough consideration of stormwater quality impacts. Routes documents to Water Resources Department to ensure that stormwater quality controls are incorporated as required.
	<b>Municipal Services Agency</b> Department of Water Resources (Drainage Development Review Section and Stormwater Quality Section)	Conditions development projects to ensure compliance with County drainage and stormwater quality standards, including the use of on-site and regional stormwater quality treatment facilities. Reviews improvement plans to ensure proper design of stormwater quality measures per the latest stormwater quality development standards.



## Legal Authority

Legal authority for the County Stormwater Quality Program is provided in several ways:

- The General Plan contains water quality protection policies.
- The County Code (Sections 15.12 and 16.44) provides the legal authority to implement the County Program and enforce the local regulations.
- Written agreements with other County departments and/or other Permittees provide a means of assigning responsibilities and establishing cost-sharing to implement various components of the County Program.
- The County Improvement Standards, Standard Construction Specifications, Stormwater Quality Design Manual and other County documents specify standards and specifications for the regulated community related to the Construction and New Development Elements of the County Program.

The County's Legal Counsel prepared a statement certifying that the County possesses the legal authority necessary to comply with the stormwater permit (see Appendix 3A).

The following sections describe in more detail, the various legal authority mechanisms held by the County.

### General Plan

Two main sections of the Conservation Element of the County's 1993 General Plan contain provisions and policies that lay the framework for water quality protection:

- *Section I, Water Resources Policies, B. Surface Water Quality*  
This section includes policies related to urban runoff controls, erosion control, water quality monitoring, and hazardous materials disposal.
- *Section V, C. Urban Streams*  
This section outlines policies related to floodplain fills, channel modifications, land use adjacent to streams, stream maintenance, and stream restoration.

The 1993 General Plan is undergoing revision and the revision should be completed in the 2009–10 fiscal year. The revised General Plan will incorporate water quality and watershed protection language that is consistent with principles outlined in the stormwater permit.

### County Code

The County adopted two ordinances that added sections to the County Code and established legal authority for the County Stormwater Quality Program:

- The Stormwater Management and Discharge Control Ordinance, also known as "The Stormwater Ordinance" (*Chapter 15.12 of County Code*) prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., water from fire-fighting activities) pursuant to NPDES federal regulations. It also provides legal authority for inspections and enforcement related to the control of illegal and industrial discharges to the County storm drain system and local receiving waters.

- The Land Grading and Erosion Control Ordinance (*Chapter 16.44 of County Code*) requires projects disturbing 350 cubic yards or more of soil or one or more acres of land to have an erosion and sediment control plan. It also gives the County legal authority to inspect projects and enforce the ordinance's requirements.

### **Agency Agreements**

The County Department of Water Resources executes intra-agency agreements with other County agencies, departments, divisions and sections to facilitate compliance with the stormwater permit. These agreements can be either formal (written) or informal (verbal).

A Memorandum of Understanding (MOU) was executed by the permittees to provide the legal authority for jointly administering and implementing certain aspects of the program, including cost-sharing for joint activities. This MOU is discussed in more detail in Chapter 2.

### **Standard Specifications and Improvement Standards**

The County's Standard Construction Specifications and Improvement Standards apply to all new public facilities and to private projects connecting to the County storm drain system or impacting the right of way. These standards include requirements and details for erosion and sediment control and control of other potential stormwater pollutants on development and construction projects in the unincorporated parts of Sacramento County.

### **Other County Standards and Guidance Manuals**

The County's development standards related to post-construction stormwater quality control were adopted in May 2006. The standards are presented, along with technical guidance, in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*, published in May 2007. This manual includes the sizing and design criteria for regional detention basins as well as the design and maintenance criteria for on-site stormwater quality source, treatment and runoff reduction measures.

Additional stormwater pollution control guidance has been produced and is made available through County EMD and Business Environmental Resource Center (BERC) for selected types of commercial/industrial businesses, such as mobile pressure washers.

### **Funding**

The Program budget consists of two parts: funds allocated for joint program activities, described in Chapter 2, and funds allocated for County-specific activities described in this chapter.

The costs of joint activities are generally shared among the Permittees according to the Permittee MOU (described in Chapter 2). Under this agreement, the County contributes 44 percent of the joint Program funding, primarily through Stormwater Utility revenues described below.

Funding for County-specific activities is provided by a combination of funds, as described below:

- **Stormwater Utility revenues** support the Stormwater Quality Section and outside consultants hired to help implement the County Program. The Stormwater Utility also covers the cost of operating and maintaining the County’s storm drain system, which includes pipes, channels, and associated structures; creeks; and regional stormwater quality facilities. A portion of each county resident’s bimonthly utility bill is designated to the Stormwater Utility.
- **User-based Development Fees** provide funding for plan reviewers, engineers, and inspectors within the Municipal Services Agency’s Construction Management and Inspection Division (CMID). These revenues also support planning staff within the Planning and Community Development Division and environmental staff within the Department of Environmental Review and Assessment (DERA). DERA staff ensures compliance with the California Environmental Quality Act (CEQA) and also implements County stormwater quality protection policies. User-based development fees are collected as part of the application processes for grading and building permits.
- **User-based Industrial/Business Fees** provide funding for Environmental Management Department inspectors who routinely inspect industrial establishments to ensure compliance with the Stormwater Ordinance through the Industrial/Commercial Stormwater Inspection Program that was developed during the previous Permit term.

### **Implementation Priorities**

The County SQIP sets out the basic goals and activities for the County Program. The overall goal is to comply with the stormwater permit in implementing a program to reduce pollutants in urban stormwater discharges to the maximum extent practicable (MEP). For the most part, what constitutes “MEP” is defined by the activities (e.g., “performance standards”) established by the stormwater permit.

In areas of the permit where the level of effort is not prescribed, the definition of MEP can vary slightly from year to year based on various factors, some of which are outside the County’s control. For instance, if the Sacramento area were to experience an extreme flood, the first priority for the Department of Water Resources would be to protect the public and property. Other activities would be postponed or abbreviated for a short period. For example, during the 1995 and 1997 floods, Stormwater Quality Section staff was temporarily diverted from their regular duties during and immediately after the events; in both cases, regular work resumed in less than a month.

County Stormwater Quality Program priorities are also influenced from year to year by the amount of time and resources needed to respond to the public, environmental groups, and regulatory agencies on various issues of concern. These response activities are impossible to predict, but become a top priority for the County.

Another factor that can affect the County Stormwater Quality Program priorities is staff turnover. The County has found it difficult to find qualified staff with experience working with stormwater issues. For this reason, during years of high turnover, priorities may get shifted slightly to allow time for staff to become educated about the Program and its many activities.

The County evaluates priorities each year as part of its budgeting process. Prioritized activities are proposed in the Work Plan for the coming fiscal year, which is submitted to the Regional Water Board on May 1 each year. Priorities and associated activities are then finalized before the start of the fiscal year on July 1.

In the Annual Report (due October 1 each year), the County reports on its ability to meet its goals and stated priorities for the reporting fiscal year.

## **Training**

Regular training keeps county staff and the regulated community abreast of the constantly evolving stormwater field and regulations. This section describes the County's stormwater training activities for the 2008–13 permit term.

### **Training for County Staff**

Ongoing training and education of county staff and managers is necessary to help ensure continued countywide compliance with the stormwater permit.

The County staff that require stormwater quality training are listed in Table 3.2-2 by program element. Each element manager in the County's Stormwater Quality Section is responsible for working with managers of the targeted staff to plan and facilitate the appropriate type and frequency of refresher training. For the most part, training will be conducted annually. Training and education can be delivered in various formats, such as workshops, presentations, informational meetings and written training materials (e.g., employee handbooks, manuals and brochures). Training accomplishments will be tracked and reported each year in the Annual Report. Additional information about specific training may be found in the individual element sections of this chapter.

### **Training for Outside Groups**

In addition to training employees, the County continues to provide training opportunities for the regulated community. Many of these training events have been done in partnership with the other permittee agencies and/or other local groups. Some examples include:

- Construction stormwater pollution prevention plan (SWPPP) training workshops for local building and engineering community;
- Permittee-sponsored low impact development training for the development community;
- “River friendly landscaping practices” workshops for landscape contractors and residents; and
- Industry-specific stormwater pollution control training workshops for industrial facility owners.

Additional information for these trainings and others can be found in the individual element sections of this chapter.

**Table 3.2-2**  
**County of Sacramento Stormwater Quality Training Program**  
**Targeted Employees**

<b>Program Element</b>	<b>Department/(Group) to be Trained</b>	<b>Objective</b>	<b>Training Frequency</b>
<b>Program Management</b>	Sacramento County Board of Supervisors, County Executive and staff	Make fiscal and programmatic decisions in support of Permit and stormwater ordinance.	Several times/year
	Agency Administrators (3), Various Department Directors	Manage County programs and staff in a manner that complies with Permit and stormwater ordinance.	Several times/year
<b>Municipal Operations</b>	Department of Water Resources (Drainage Maintenance Engineering)	Maintain storm drain system in compliance with Permit and stormwater ordinance. Stormwater pollution prevention, BMP identification and implementation, proper housekeeping practices, as well as identification and reporting of illicit discharges and connections.	Annual
	Department of Transportation (Transportation Maintenance and Operations)	Maintain County-owned roads and respond to hazardous or unidentified pollutant discharges to the storm drain system in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	Annual
	Department of General Services (Facilities Management Division)	Maintain County facilities in compliance with Permit and stormwater ordinance.	Annual
	Department of General Services (Fleet Services Division)	Maintain County-owned vehicles in compliance with Permit and stormwater ordinance.	Annual
	Department of General Services (Parking Services Division)	Maintain County parking facilities in compliance with Permit and Parking Lot Inspection and Maintenance Program.	Annual
	Operators of County-owned facilities subject to State Industrial General Permit	Individual facility operators are responsible for providing training in compliance with Industrial General Permit – SWQ Program provides support as requested.	Annual
	Regional Parks, Recreation and Open Space	Maintain County facilities in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	When requirements are updated
	Department of Waste Management and Recycling	Conduct waste collection activities in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	When requirements are updated
	Animal Care and Regulation	Operate County animal care facility in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	When requirements are updated
	Department of Water Quality	Conduct sewer related maintenance activities in compliance with Permit and stormwater ordinance.	When requirements are updated

<b>Program Element</b>	<b>Department/(Group) to be Trained</b>	<b>Objective</b>	<b>Training Frequency</b>
<b>Commercial/Industrial</b>	Environmental Management Department (EMD)	Conduct Industrial Inspection Program in compliance with Permit and stormwater ordinance.	When QC reports by EMD indicate a need
<b>Illicit</b>	Department of Planning and Community Development (Code Enforcement )	Identification and reporting of illicit discharges and connections	When requirements are updated
	Department of Water Quality (Wastewater Source Control Section)	Identification and reporting of illicit discharges and connections	When requirements are updated
	Department of Water Resources (Drainage Maintenance Engineering)	Identification and reporting of illicit discharges and connections.	Annual
<b>Construction</b>	Dept. of County Engineering (Construction Management and Inspection Division)	Conduct public and private construction site inspections in compliance with Permit, stormwater ordinance and Erosion and Sediment Control Plans.	Annual
	All department staff, contractors and consultants engaging in County construction activities (DWR, Water Quality, Transportation)	Conduct construction activities in compliance with Permit, SWPPP and stormwater ordinance.	As required (Project Specific Training Program)
<b>New Development</b>	Dept. of Water Resources (Drainage Development)	Condition and review project plans in compliance with current stormwater design standards.	On-going
	Department of Planning and Community Development	Condition development applications in compliance with current stormwater design standards.	On-going
	Department of Environmental Review and Assessment	Condition environmental documents in compliance with current stormwater design standards.	On-going
	Dept. of County Engineering (Architectural Services Division)	Design County projects to comply with current stormwater design standards.	Annual
	Dept. of Transportation	Design transportation facilities in compliance with current stormwater design standards and review landscaping plans to ensure consistency between stormwater requirements and other County codes.	Annual

## Record Keeping and Reporting

Recordkeeping is an integral part of the County Stormwater Quality Program, since documentation is needed to demonstrate continued compliance with the stormwater permit. The Stormwater Quality Section within the Department of Water Resources maintains the stormwater compliance files, as well as an extensive stormwater library. Files are retained for at least five years from the date of generation, as required by the stormwater regulations.

Other County staff with stormwater permit compliance responsibilities also keeps records and logs. These records are summarized every year and submitted to the Stormwater Quality Section for incorporation into the Annual Report. To facilitate easy retrieval of information, each Annual Report includes electronic copies of all appendices each year.

### **Activities for the 2008–13 Permit Term**

Table 3.2-3 outlines the activities that will be conducted for the Program Management Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule. In addition to those activities listed in Table 3.2-3 that were implemented starting in the 2002–07 permit term, the following activities are new to the program:

- **Coordination with newly designated NPDES Phase II municipal general permit entities** — As school districts, parks districts and other non-traditional NPDES Phase II entities are designated by the State or Regional Water Board, the County will work with these groups to ensure that activities are consistent and not redundant.
- **Training program effectiveness** — Surveys and other assessment tools will be used in the County’s training program to ensure that the program is effective and able to adjust as improvements are identified.
- **Overall program effectiveness** — The overall program will be evaluated each year in the Annual Report to demonstrate effectiveness. Indicator tasks will be identified within each element to help assess effectiveness and these will be discussed in the Annual Report.

### **Effectiveness Assessment**

The County works with the City of Sacramento and other permittees to assess the effectiveness of the overall stormwater program as described in Chapter 2. In addition, the County evaluates the effectiveness of its individual activities related to permit compliance. For this program management element, most activities have Level 1 effectiveness outcomes, which require annual documentation that activities have been conducted as required by the permit. The exception to this is training.

During the 2008–13 permit term the County will use surveys and follow-up meetings with selected groups to assess the knowledge level of trained staff with a goal of increasing awareness (outcome level 2). In some cases, subsequent surveys and field verification may then be used to assess if behaviors have changed (outcome level 3).

Table 3.2-3 lists the program management element tasks for the 2008–13 permit term and summarizes and proposed effectiveness outcome levels for those tasks.

### **Coordination within the County**

To coordinate with various departments within the County, Stormwater Quality Section staff conducts the following types of tasks:

- Develop and distribute educational materials;

- Provide workshops and presentations to educate County staff;
- Provide technical assistance on how to select and implement best management practices (BMPs) for reducing stormwater pollution;
- Interpret and clarify regulations and permit requirements;
- Provide guidance on how to keep records that provide useful data for evaluating the Program and preparing compliance reports; and
- Help communicate with regulators, environmental groups, and the public.

## **Coordination with Other Agencies and Programs**

### **Sacramento Stormwater Quality Partnership**

On-going permittee coordination is necessary to share information, ensure the most cost-effective use of permittee resources, and avoid duplication. The County and the City of Sacramento are the two largest permittees and assume a shared leadership role in the Sacramento Stormwater Quality Partnership (Partnership). In this role, the County has been active in coordinating and managing the overall program since its inception in 1990. The City and County of Sacramento typically share the following work on behalf of the entire permittee group:

- Leadership and facilitation of Permittee Committee meetings;
- Preparation and updating of task authorizations and MOUs between permittees;
- Planning, development, implementation, reporting and evaluation of joint program work described in Chapter 2;
- Execution and administration of consultant contracts for joint program activities;
- Liaison with and program representation to the Regional Water Board and outside groups such as the California Association of Stormwater Quality Agencies (CASQA);
- Preparation and submittal to the Regional Water Board of the joint program Annual Work Plan and Annual Report; and
- Preparation (and submittal to the Regional Water Board if required) of other joint program studies and compliance reports.

The County also represents on occasion, and/or provides some stormwater services to some of the smaller cities in the program: Citrus Heights and Rancho Cordova.



## Outside Agencies

The County coordinates with several local and regional agencies in efforts related to implementation of the County Stormwater Quality Program:

- **Sacramento Regional County Sanitation District (SRCSD)** — The County's Stormwater Quality Section staff coordinates closely with SRCSD on several common projects. Funds from the Stormwater Utility pay a portion of the Coordinated Monitoring Program (monitoring in local rivers), a function also performed by SRCSD.
- **Special Districts** such as Metro Fire District, Regional Transit, and schools, parks, reclamation and irrigation districts — The County coordinates with special districts on a project-specific basis to implement stormwater controls. As some school districts obtain coverage under the NPDES Phase II municipal stormwater general permit, County staff will coordinate with district staff in order to assist them in complying with the new requirements cost-effectively.
- **Sacramento-Yolo Mosquito and Vector Control District** — The County coordinates with the vector control district in efforts related to vector control issues in local water bodies.
- **Caltrans** — The County coordinates with Caltrans on a project-specific basis to implement stormwater controls.

## Other Stormwater Programs

The County coordinates with other stormwater programs within California to share information and identify opportunities to work together. This effort is facilitated through CASQA. The County's participation in CASQA also keeps staff apprised of changing regulations and provides an opportunity to work with members to influence state and national stormwater policy and regulations.

**Table 3.2-3 – Sacramento County SQIP  
Program Management Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	FY 08/09	FY 09/10	Schedule				Due Date/ Status/Other
					FY 10/11	FY 11/12	FY 12/13	FY 13/14			
Stormwater Quality Improvement Plan (SQIP)											
Revise SQIP to address requirements of Stormwater Permit, Regional Board comments (received 7/22/09) and public review	2		Original SQIP submitted June 2007. First revised SQIP submitted April 30, 2009. Second revised SQIP submitted September 22, 2009.	Confirmation- submit SQIP to Regional Water Board	◆	◆					4/30/2009, 9/22/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c		Revised SQIP	Confirmation- submit SQIP to Regional Water Board	↔	↔	↔	↔	↔	↔	
Annual Work Plan											
Prepare and submit Annual Work Plan	3.a		Annual Work Plan submitted	Confirmation- submit work plan to Regional Water Board	◆	◆	◆	◆	◆	◆	May 1 each year
Annual Report											
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	Confirmation - submit AR to Regional Water Board	◆	◆	◆	◆	◆	◆	October 1 each year
Memorandum of Understanding (MOU)											
Review and revise existing permittee memorandum of understanding	3.e		MOU submitted to Regional Water Board when revised			◆					Submit with AR after revision
Legal Authority											
Establish and maintain legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance	Confirmation-include revised ordinance in AR			◆				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel to Regional Water Board	6		Submit statement of legal authority from chief legal counsel to Regional Water Board	Confirmation-include statement in SQIP	◆				◆		Submit with SQIP 9/22/2009
Fiscal Analysis											
Secure resources necessary to meet Stormwater Permit requirements	7		Fiscal summary submitted to Regional Water Board as part of Annual Report		◆	◆	◆	◆	◆	◆	October 1 each year
Report of Waste Discharge											
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board	Confirmation- ROWD submitted to Regional Water Board by specified date					◆		ROWD due 3/15/2013

↔ Ongoing activity/task    ◆ Deliverable or key milestone    2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.2-3 – Sacramento County SQIP  
Program Management Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Coordination											
Coordinate on program element basis with other County groups and outside agencies	1.b		Track coordination and intra-agency agreements		↔	↔	↔	↔	↔	↔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	Confirmation- track coordination in AR	↔	↔	↔	↔	↔	↔	
Program Effectiveness											
Annually: Measure and report program element and activity effectiveness	29.c		Submit effectiveness Assessment results with AR each year (October )	Confirmation- include effectiveness assessment results in AR	◆	◆	◆	◆	◆	◆	Submit with annual reports, October 1 each year
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters	MRP 1.B.10		Submit information in final AR for permit term (October 1, 2013)	Confirmation- submit ROWD and final AR to Regional Water Board						◆	Submit in final AR 10/1/2013
Long Term Effectiveness Assessment (LTEA)											
Describe proposed LTEA for programmatic and environmental goals	29.a		Submit LTEA Plan to Regional Water Board with SQIP		◆						Submit with SQIP 9/22/2009
Perform LTEA on program tasks for permit term	29.d		Submit LTEA results to Regional Water Board	Confirmation - LTEA submitted to Regional Water Board by specified date					◆		Submit with ROWD 3/15/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

### 3.3 Construction Element

The primary mission of the Construction Element is to prevent sediment and other construction-related pollutants from entering the storm drain system and local creeks and rivers.

If not properly managed, construction activities can result in erosion and the discharge of sediment and other construction-related pollutants with harmful environmental effects. For example:

- Site grading exposes soil to the erosive effects of rainfall and wind unless the disturbed areas are stabilized as soon as possible after grading and before rain.
- If loose sediments are not adequately retained on the construction site, they can be transported to creeks and rivers where they can harm or destroy aquatic habitat.
- Unless good housekeeping and waste management techniques are used to keep litter, concrete, stucco, paint, and other pollutants on-site, these pollutants can be carried in runoff to creeks and rivers, where they impair the beneficial uses of those water bodies.

Although the rate of land development in the Sacramento region has slowed down recently, it is expected to increase during the 2008–2013 permit term. Current and projected growth in the area is concentrated in the southern and eastern portions of unincorporated Sacramento County. There are several key challenges for this program element:

- Projects are constructed year-round in the Sacramento area due to the climate and there are typically many active grading projects occurring during intense storm events
- There is a myriad of County agencies and departments involved in the design, construction, and administration of projects, and these activities must be coordinated to achieve overall compliance with the Stormwater Permit.
- The state of the practice with respect to erosion and sediment control BMPs is rapidly evolving. To stay abreast of changing technology and learn from the experiences of others, County staff meet with vendors, subscribe to and circulate technical newsletters and journals, attend workshops and conferences, and network with other permittees and stormwater programs.

#### Pollutants Addressed

The main pollutant addressed by the Construction Element is sediment. Controlling the discharge of sediment from construction sites also reduces the discharge of other pollutants that tend to attach to sediments, such as copper, lead, and other metals that naturally occur in Sacramento's soils. Copper and lead are two of the Program's target pollutants (see Chapter 2, Section 2.5). Sediment itself is also considered a pollutant since excess amounts can harm or destroy aquatic habitat. Construction controls also reduce the discharge of litter, debris, concrete and slurry (high pH), paints (metals) and other construction-related pollutants to local creeks and rivers.

## **Construction Element Strategy**

The County requires that private and public construction sites be managed to reduce the potential for erosion and discharge of sediments and other construction-related pollutants to the County's storm drain system or local creeks. The County's continued approach to ensure compliance includes the following tasks:

- Create and update ordinances and codes to provide continued legal authority to the County for control of construction-related discharges
- Authorize and empower County inspectors and other staff to enforce ordinances and codes; develop and update enforcement policies and procedures.
- Provide improvement standards and specifications to the construction community.
- Conduct plan review and permitting to ensure compliance starting at the earliest possible stage of project design and approval
- Inspect construction sites based on a prioritized threat to water quality and conduct enforcement to ensure compliance
- Help ensure compliance with the State's Construction General Permit
- Educate and inform the construction community about local ordinances and state laws and provide guidance to help ensure compliance with the regulations

Each of these strategies is explained more in the following paragraphs.

### **Develop and Update Ordinances and Related Documents**

In 1993 the County established the Land Grading and Erosion Control Ordinance ([http://municipalcodes.lexisnexis.com/codes/sacramento\\_co/\\_DATA/TITLE16/Chapter\\_16\\_44\\_LAND\\_GRADING\\_AND.html](http://municipalcodes.lexisnexis.com/codes/sacramento_co/_DATA/TITLE16/Chapter_16_44_LAND_GRADING_AND.html)) and has updated it since that time. The Erosion Control Ordinance requires projects disturbing one or more acres or moving 350 cubic yards or more of soil to prepare an Erosion and Sediment Control (ESC) Plan as part of the grading permit application process. In addition, the County's Stormwater Ordinance ([http://municipalcodes.lexisnexis.com/codes/sacramento\\_co/\\_DATA/TITLE15/Chapter\\_15\\_12\\_STORMWATER\\_MANAG.html](http://municipalcodes.lexisnexis.com/codes/sacramento_co/_DATA/TITLE15/Chapter_15_12_STORMWATER_MANAG.html)) prohibits the discharge of sediment and other construction-related pollutants from entering the County's storm drain system. This ordinance was updated in 2005 and applies to all projects, including those not subject to the Erosion Control Ordinance.

### **Authorize and Empower County Staff to Enforce Ordinances**

All County staff, including construction and building inspectors, were authorized by the County Executive in 2000 to enforce the County's Stormwater Ordinance. The County inspectors are also authorized to enforce the Erosion Control Ordinance and issue notices of non-compliance.

### **Conduct Plan Review and Permitting**

The County's Erosion Control Ordinance requires a grading permit and erosion and sediment controls on all private projects, disturbing one acre or more or exceeding 350 cubic yards or more of fill.

Private and public projects in the County disturbing one or more acres of land are required to obtain coverage under the State’s Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the County will verify that a State-required Notice of Intent (NOI) was filed and will check the SWPPP for six items required by the Stormwater Permit.

### **Develop Standards, Specifications, and Guidance Materials**

The County prepares and updates standards and specifications that provide engineering details and specifications for use in preparing ESC plans. Most of the permittees in the Partnership have opted to use the County’s standards and specifications to promote county-wide consistency for the construction community. The ESC plans must specify which BMPs will be used throughout the construction project to minimize pollution risk, given the site conditions. Implementation of the ESC plans requires regular inspection and maintenance of BMPs to prevent pollution at all times.

The County will continue to modify the standards and specifications as newer, innovative, more cost-effective and proven approaches become available.

### **Inspect Construction Sites According to Water Quality Threat and Conduct Enforcement**

Beginning July 1, 2003, the County began inspecting construction sites disturbing one or more acres at a frequency commensurate with the potential threat to water quality. As required by the Stormwater Permit, the County created and regularly updated a prioritized list of sites for inspection. The following factors are used, at a minimum, to determine if sites should be prioritized as “high” or “moderate” threat to water quality:

- *Project size:* All construction sites disturbing five acres or more shall be considered a “high” threat.
- *Erosive or colloidal clay soils:* Projects with sediment-laden runoff which requires filtration (chemical or mechanical), shall be considered a “high” threat.
- *Proximity to Waters of the State:* Any construction site located adjacent to and/or discharging directly into a Water of the State shall be considered a “high” threat.
- *Previous known violations:* Sites with a project owner or general contractor known to have received one or more stormwater-related enforcement actions from the County, another local agency or the Regional Water Board within the previous two years shall be considered a “high” threat.
- *BMP Status:* Any project site which demonstrates improper installation or maintenance of BMPs or the lack of BMPs shall be considered a “high” threat.

High priority sites are inspected once every two weeks during the wet season (October 1 – April 30) and monthly thereafter. Moderate priority sites are inspected monthly throughout the year.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system.

### **Help Ensure Compliance with State’s Construction General Permit**

Although the County has no authority to enforce the State’s Construction General Permit, the County is required by the stormwater permit to conduct several tasks to help the regulators ensure compliance for private construction projects disturbing one or more acres:

- County staff must require proof of filing of a Notice of Intent (NOI) to comply with the Construction General Permit prior to issuing a County grading permit for a project.
- County plan checkers must verify that a stormwater pollution prevention plan (SWPPP) has been prepared, including six items specified in the stormwater permit, prior to issuing a County grading permit for a project.
- County stormwater staff will refer verified non-filers to the Regional Water Board.

The County will continue to ensure that County-owned construction projects disturbing one acre or more comply with the Construction General Permit by educating and training staff and reviewing SWPPPs prior to construction. The Directors of various County departments (e.g., Water Resources, Transportation, and Water Quality) are responsible for ensuring General Permit compliance for projects conducted by their department, including designating authority for certification of documents required by the General Permit.

### **Educate and Inform Construction Community**

The construction community includes internal County personnel and the external regulated construction community of contractors and their subcontractors. The internal audience includes county construction/project managers responsible for design and construction of county-owned jobs and county inspectors who inspect public and private jobs.

The County provides annual refresher training to staff about proper selection, design, installation, and maintenance of erosion and sediment controls. Typically this training is provided in late summer, just prior to the start of the wet season (October 1). The County also collaborates with the other permittees and organizations such as the Building Industry Association (BIA) to co-sponsor training workshops and informational sessions for the construction community. The County prepares and distributes brochures related to proper use and disposal of paint and concrete wastes, and refers to guidance developed by others, such as the CASQA manual.

The target audience for outreach includes developers, engineers, contractors, plan reviewers, and inspectors working on both public and private projects. These educational efforts also keep staff and others informed of new and changing regulations, technology, and practices.

## **Accomplishments to Date**

The County has made significant progress in eliminating illegal discharges and controlling erosion and sediment at construction sites in the unincorporated county since the program began in 1990. Key accomplishments include:

- Developed and modified the Stormwater Ordinance and delegated enforcement authority to County inspection staff
- Developed and modified standards and specifications for construction BMPs and hosted a training workshop for permittee staff in cooperation with the City of Sacramento; these standards are now used by all permittees
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects
- Hired designated erosion control staff in the Construction Management Inspection Division and supported stormwater inspection supervisors becoming Certified Professionals in Erosion and Sediment Control (CPESC)
- Consulted with the Building Industry Association (BIA) to develop an Inspectors Checklist for use during construction inspections
- Developed and conducted numerous training workshops for the construction community in coordination with the other permittees in the Partnership, and groups such as the BIA
- Developed and distributed various brochures in several languages
- Required project specific coordination meetings to discuss stormwater issues for all County construction projects
- Developed small construction site brochure
- Provided feedback to the State on new Construction General Permit
- Developed and continually update training for County inspection staff
- All County construction inspection staff trained annually

## **Activities for the 2008–13 Permit Term**

This section describes Construction Element activities for the 2008–13 permit term, developed to comply with stormwater permit requirements.

Table 3.3–1 at the end of this section outlines the activities that will be conducted under the Construction Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following describes the major activities in more detail:



### **Legal Authority**

Following adoption of the new State Construction General Permit (anticipated 2009–10); the County will evaluate any necessary changes to this element and related codes and standards, to promote consistency.

### **Plan Review and Permitting**

The County's Land Grading & Erosion Control Ordinance requires a grading permit and erosion and sediment controls on all private projects, disturbing one acre or more or exceeds 350 cubic yards or more of fill.

Private and public projects in the County disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the County will verify that a State-required Notice of Intent (NOI) was filed and will check the SWPPP for six items required by the Stormwater Permit. The County will track grading permits using an electronic database. This is a continuation of activities conducted during the 2002–07 permit term.

### **Inventory and Prioritization**

The City will continue to maintain a database to track public and private active construction sites and will use this information to schedule/prioritize inspections and develop annual reports.

### **Inspections and Enforcement**

The Construction Management Inspection Division will continue to be responsible for day-to-day inspection at project sites and for enforcing the County's erosion and sediment control requirements and the Stormwater Ordinance. Projects will be inspected to ensure compliance with local ordinances, verify that sites adequately address erosion, sediment, and pollution control, and ascertain that SWPPPs and monitoring plans are on-site for applicable projects. The County inspector will give verbal warnings and issue Notices of Violations.

As required by the Stormwater Permit, if a contractor on a project disturbing one acre or more cannot demonstrate that the developer/owner has submitted an NOI or received a Waste Discharge Identification (WDID) number from the state, staff will notify the Regional Water Board within five business days of discovery. Non-filer referrals shall include the project location, developer, estimated project size and records of communication with the developer regarding filling requirements.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

A database of active construction projects and their priorities will be maintained by the County at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks or rivers.

### **Education and Training for County staff and the Construction Community**

The County will continue to provide education and guidance to both County staff (at least annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices.

The County will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the BIA. This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection.

The County (along with the other co-permittees) will continue to develop and produce outreach materials such as brochures for concrete and painting, printed in English and Spanish.

The County will work with county departments that construct Capital Improvement Projects to develop a policy to address stormwater issues earlier in the planning process.

The County will assess the permitting process which allows Special Districts to construct projects within the County.

### **Effectiveness Assessment**

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the Construction Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002–2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008–2013 permit term activities.

Table 3.3-1 presents planned activities for the 2008–13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.3-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Opportunities for improvements to this program element will be identified by evaluating inspection, enforcement and outreach-related data. Key Indicators have been selected to demonstrate progress towards meeting program or element goals. These indicators, shown on Table 3.3-1, are intended to be specific, measurable, and attainable, and to the extent possible, consistent with the other permittee SQIPs. The key indicators will be used to assess the effectiveness of individual permittee programs, as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit.

### **Relationship to Other Program Elements**

The Construction Element relates to other program elements as follows:

#### **Commercial/Industrial Element (Section 3.4)**

Both the Construction Element and the Commercial/Industrial Element target the construction and building trades. County staff working on the two elements collaborate on the development of consistent BMP guidance materials, common educational materials, and training workshops. A mutual enforcement policy and database are shared by the Construction Element, Commercial/Industrial Element, and the Illicit Discharge Element.

#### **Municipal Operations (Section 3.5)**

The County requires that County construction projects and construction activities at County facilities follow the same stormwater rules established for private jobs. County staff working on the Construction and Municipal Operations Elements coordinate on annual refresher training for County staff in various different departments to help facilitate continued compliance.

The County conducts site and project-specific training for employees and contractors working on County-owned construction projects.

#### **Illicit Discharge Element (Section 3.6)**

County staff implementing the Illicit Discharge Element have developed notification and referral procedures for use by construction inspectors and field maintenance crews when illicit discharge problems are observed at construction projects. These procedures are discussed in Section 3.6. A mutual enforcement policy and database are shared by the Construction Element, Commercial /Industrial Element, and the Illicit Discharge Element.

#### **Public Outreach Element (Chapter 2, Section 2.6)**

Effectively educating the construction community about erosion control requires the expertise and help of those implementing the Public Outreach Element. Assistance is needed to identify and develop messages for target audiences, identify and establish focus groups, develop and implement training, and create effective educational and informational materials.

Brochures have been developed for specific building trades in several languages.

**New Development Element (Section 3.8)**

County staff implementing the Construction and New Development Elements work closely to:

- Coordinate outreach efforts where possible since both elements target common members of the construction and development communities (e.g., engineers, developers)
- Provide education and guidance to help ensure that post-construction stormwater quality control measures required by the County for development projects are properly installed and protected from receiving excessive sediment loads during construction
- Ensure that “No Dumping-Drains to Creek” messages are permanently stamped on new storm drain inlets during construction

**Coordination within the County of Sacramento**

Stormwater staff in the County’s Department of Water Resources provide training and informational materials to staff in other County departments/groups involved in design, construction, and/or administration of public and private construction jobs. Relationships are established and maintained with project managers, designers, plan reviewers, inspectors, and their managers to achieve and document compliance.

Most interdepartmental coordination is done on an informal basis through written correspondence and regular meetings. For example, stormwater staff participate in routine meetings with the following groups related to Stormwater Permit compliance on private construction projects:

- Plan reviewers in Land Development and Site Improvement Review (LDSIR) who are responsible for reviewing erosion and sediment control plans and issuing grading permits
- Stormwater construction inspectors in the Construction Management Inspection Division who are responsible for ensuring stormwater compliance on grading projects and construction of public utilities and roadways
- Stormwater building inspectors in the Construction Management Inspection Division who are responsible for ensuring stormwater compliance for construction of buildings on private jobs

**Coordination with Other Agencies and Groups**

The County coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. This coordination is also helpful for other purposes.

The County relies heavily on several existing forums for reaching and receiving feedback from the construction and development communities. For example, the County has worked with the BIA, Consulting Engineers and Land Surveyors of California

(CELSOC), International Conference of Building Officials (ICBO), and Associated General Contractors of California (AGC) to provide outreach and receive feedback on various issues. County manager(s) attend meetings with the BIA and special presentations, such as a presentation made to BIA in March 2003 regarding the Phase II NPDES impacts to local construction projects. The BIA also helped develop the stormwater inspection checklist used by the County's building inspectors.

The County assists the Regional Water Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking SWPPPs, and referring site operators who have not complied with the State regulations. Through participation in the California Association of Stormwater Agencies (CASQA), the County tracks and comments on periodic revisions to the Construction General Permit and other regulations by the State Water Board.

**Table 3.3-1 – Sacramento County SQIP  
Construction Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	FY 08/09	FY 09/10	Schedule				Due Date/ Status/Other
Legal Authority											
Evaluate/Amend Stormwater Ordinance	4.f, 5, 8.a.i		Evaluate ordinance; adopt necessary amendments to provide authority to enforce 2008 stormwater permit requirements related to this element.	Confirmation - report revisions in AR	↔	↔	↔◆	↔	↔	↔	one year from SQIP approval
Evaluate/Amend Land Grading and Erosion Control Ordinance	8.a.i		Adopt necessary revisions after Construction General Permit is effective.	Confirmation - report revisions in AR	↔	↔	↔◆	↔	↔	↔	
Plan Review and Approval Process											
Review Grading Plans and applications	8.a.i		Number of Grading Permits issued	Confirmation - report revisions in AR	↔	↔	↔	↔	↔	↔	
	8.a.iii	✓	Number of sites subjected to erosion & sediment controls	Confirmation - report revisions in AR							
	8.a.iv		Percent of sites incorporating erosion and sediment controls		↔	↔	↔	↔	↔	↔	
	8.c.v		Number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed.	Confirmation - report list and revisions in AR	↔	↔	↔	↔	↔	↔	
Standards & Specifications											
Develop new standards and specifications	8.c		Adopt revisions after Construction General Permit is effective.	Confirmation – report revisions in AR	↔	↔	↔	↔	↔	↔	
Inventory and Prioritization											
Inventory construction sites	8.a.iv	✓	Number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Conformation – Identify that the inventory was developed					3		
Inspections											
Conduct routine inspection of active construction sites	8.e		Update /revise inspection checklist	Conformation – indentify that checklist was updated	↔	↔	↔	↔	↔	↔	

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.3-1 – Sacramento County SQIP  
Construction Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Perform routine inspections	8.a.iv		Number of sites subject to inspections	Tabulation – track enforcement action issued	↔	↔	↔	↔	↔	↔	
	8.a.iv		Number of inspections completed	Tabulation – Track number of brochures distributed	↔	↔	↔	↔	↔	↔	
<b>Enforcement</b>											
Progressive Enforcement Policy	8.a.vii		Develop enforcement policy	Conformation - track number of revised/new materials; number materials distributed in AR					3		
Conduct enforcement on construction sites not in conformance with County Ordinances.	8.a.vii	✓	Number and types of corrective and enforcement actions	Tabulation – Track number of businesses outreached	↔	↔	↔	↔	↔	↔	
	8.a.vii		Number of referrals made to RWQCB	Tabulation – Estimate raised awareness based on surveys or available research data	↔	↔	↔	↔	↔	↔	
	8.a.vii		Number of repeat offenders and/or problem areas identified	Confirmation - include updated list in AR							
<b>Education and Training</b>											
Provide regular internal and external training on applicable components of the SQIP and related Permits	8.a.viii		Conduct training annually to targeted County employees and the construction community	Tabulation - Track training activities performed	↔	↔	↔	↔	↔	↔	

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

### 3.4 Commercial/ Industrial Element

The goal of the Commercial/Industrial Element is to comply with the requirements of the stormwater permit by reducing the discharge of stormwater pollutants to the maximum extent practicable and eliminate illegal non-

The goal of the Commercial/Industrial Element is to comply with the requirements of the stormwater permit by reducing the discharge of stormwater pollutants to the maximum extent practicable and effectively eliminating illegal non-stormwater discharges from commercial and industrial facilities and operations.

stormwater discharges from commercial and industrial facilities and operations within the urbanized area of the unincorporated County. The Commercial/Industrial Element works to address these conditions through complaint-based inspection and enforcement as well as through outreach targeted at business operators and their employees.

The County's Commercial/Industrial Element compliments the Regional Commercial/Industrial Program (presented in Section 2.7) by coordinating inspections and enforcement, working together to identify priority industries for stormwater compliance inspections and targeted outreach, developing and maintaining pollutant and industry-specific outreach materials, and providing training to the business community.

#### Pollutants Addressed

The County's activities and requirements under the Commercial/Industrial Element address a wide range of pollutants associated with commercial and industrial activities, including metals such as copper, lead, and mercury, three of the Program's target pollutants (see Section 2.5).

For commercial operations such as carpet cleaning companies and landscape contractors, potential pollutants include chemicals, detergents, sediment, fertilizers, and pesticides such as pyrethroid insecticides. Although not yet formally ranked as a target pollutant, the Permittees recognize that pyrethroids have essentially replaced diazinon and chlorpyrifos in the urban market. The Permittees have begun to address pyrethroids as if they were a high ranking target pollutant based on the results of recent studies in local creeks. Due to the mobile nature of these types of businesses, the pollutants can be discharged into the County's storm drain system or local creeks and rivers either directly, or by way of urban runoff from residential areas where the work is done.

The type and amount of pollutants addressed depend on the specific activities taking place at a commercial or industrial facility or by a mobile business operation and the BMPs employed by the operators and their employees to prevent pollution and/or treat site runoff.

#### Commercial/Industrial Element Strategy

The County's Commercial/Industrial Element employs a variety of strategies to effectively meet the requirement of the stormwater permit. The primary activities conducted by this element include:



- Priority industry and industrial pollutant identification (described in Section 2.7 of the SQIP)
- Commercial and Industrial Stormwater Compliance Program (CISCP) implementation (described in Section 2.7 of the SQIP)
- Complaint-Based Stormwater Compliance Program (CBSCP) implementation
- Educational outreach

A core strategy of the Commercial/Industrial Element is to utilize knowledge gained through implementation of these activities to assess the County's effectiveness. The results of such assessments are used to refine element activities. For example, enforcement-related data collected during the first two rounds of CISCP inspections (first round completed in June of 2007 and second round to be completed in June of 2010) and the CBSCP will be used to refine the priority industries subject to inspections under the CISCP and targeted outreach.

Another strategy is to efficiently use County staff and resources and minimize inconvenience to regulated businesses by building upon existing environmental compliance programs. The County's Environmental Management Department (EMD) agreed to conduct triennial stormwater inspections under the CISCP on behalf of all the permittees, pursuant this strategy. The types of priority industry categories included in the CISCP are presented in Table 3.4-1 to characterize the make-up of the County's commercial and industrial sectors.

**Table 3.4-1.**  
**Priority Industries in the Unincorporated County Subject to Inspection by EMD Under the CISCP**

<b>Commercial/Industrial Category</b>	<b>No. Facilities (2008)</b>
Auto body shops	121
Auto repair shops	368
Auto dealers	94
Equipment rental facilities	11
Kennels	27
Nurseries	14
Retail gasoline outlets (i.e., gas stations)	141
Restaurants	1176
Facilities covered by the State's Industrial General Permit	94
<b>Total</b>	<b>2046</b>

### **Accomplishments to Date**

The following highlights the major accomplishments of the Commercial/Industrial Element since 1990:

- The County Board of Supervisors adopted the County Stormwater Ordinance in 1998, which provides legal authority for regulating commercial businesses and

industries with respect to stormwater pollution. The County updated the ordinance twice during the 2002–07 permit term to clarify and enhance enforcement authority. EMD stormwater inspectors are authorized to enforce this ordinance county-wide; ensuring consistent treatment of regulated industries.

- The permittees developed a list of priority commercial businesses and industry categories subject to either routine inspections or targeted outreach, and definitions for each. EMD refined the definitions of the priority industries based on field inspection observations.
- The permittees and EMD created industry-specific educational materials, including brochures, guidance manuals and Compliance Assistance Bulletins (CABs). These are distributed by direct mail, in training workshops, by way of BERC, during inspections, and in conjunction with enforcement actions. CABs and other CISC-related compliance assistance materials are also made available on EMD's web site (<http://www.emd.saccounty.net/WP/EMDstormwater.htm>). Several outreach brochures were translated into Spanish, Russian, and Chinese.
- The permittees and EMD developed and maintained comprehensive databases to track and document inspection and outreach efforts, for annual reporting and progressive enforcement purposes.
- EMD and the permittees coordinated with the Regional Water Board by referring over 110 Industrial General Permit non-filers, reporting significant violations, promptly investigating Regional Water Board referrals, and assisting with coordinated inspections and outreach to selected industries upon request.

### **Activities for the 2008–13 Stormwater Permit Term**

This section describes Commercial/Industrial Element activities for the 2008–13 permit term, developed to comply with stormwater permit requirements.

Table 3.4–2 at the end of this section outlines the activities that will be conducted under the Commercial/Industrial Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following describes the major activities in more detail:

#### **Legal Authority**

The County's Stormwater Ordinance provides legal authority for regulating pollutant discharges to the storm drain system. Within one year of Regional Water Board approval of the SQIP, the Stormwater Ordinance will be evaluated, and necessary amendments will be made to provide adequate authority to enforce requirements of the 2008 stormwater permit.

### **Priority Industry and Industrial Pollutant Identification**

Refer to Section 2.7 for a description of priority industry and industrial pollutant identification activities of the CBSCP for the 2008–13 permit term.

### **Commercial and Industrial Stormwater Compliance Program (CISCP)**

Refer to Section 2.7 for a description of CISCP activities of the CBSCP for the 2008–13 permit term. Evaluation of data collected through this program may result in changes to priority industries subject to inspection and outreach.

### **Complaint-Based Stormwater Compliance Program (CBSCP)**

County stormwater staff will inspect businesses within the unincorporated County not addressed through EMD's CISCP program on a complaint basis. Complaints are referred by the public, other County agencies and departments, the Regional Water Board, and other sources. Stormwater staff will refer any complaints related to businesses included in the CISCP to EMD for investigation. All other complaints will be investigated, and associated progressive enforcement will be conducted, by County stormwater staff to ensure compliance with the Stormwater Ordinance. Complaints related to businesses in other permittee jurisdictions will be referred to the respective permittee, with the exception of Citrus Heights and Rancho Cordova as the County provides CBSCP services.

#### *CBSCP Inspections*

Inspections of businesses will verify compliance with the County Stormwater Ordinance, including that there are neither illicit connections nor prohibited non-stormwater discharges evident, and that the potential for discharge of pollutants from on-site sources is reduced to the maximum extent practicable.

#### *CBSCP Enforcement*

The County will continue to conduct progressive enforcement to obtain compliance in accordance with the County Stormwater Ordinance and will maintain a progressive enforcement policy to compliment the enforcement-related procedures contained therein.

#### *CBSCP Outreach*

County stormwater staff will provide relevant educational materials, including BMP guidance materials, to businesses during inspections, in conjunction with enforcement actions, through trade associations and industry suppliers, during workshops and other events, through BEREC and through the County's website (<http://www.sactostormwater.org/industry.asp>).

The County will continue to partner with BEREC and other organizations to provide industry-specific BMP workshops for businesses and special districts (e.g. fire and water districts) upon request and as needs are identified.

### *CBSCP Data Management*

County stormwater staff will maintain a database of reported cases including associated findings and enforcement actions. Data will be evaluated and findings will be used to guide the priority industry identification process.

### *CBSCP Interagency Coordination*

The County stormwater staff will continue to coordinate and cooperate with the Regional Water Board related to non-compliant facilities and suspected Industrial General Permit non-filers, as indicated by the flowchart in Appendix 2F.

### **Outreach**

Refer to Section 2.7 for a description of CISC activities of the CBSCP for the 2008–13 permit term. Evaluation of data collected through this program may result in changes to priority industries subject to inspection and outreach.

As with past years, it is anticipated that two primary types of outreach materials will be distributed:

- *General brochures and fact sheets:* These publications detail what types of activities may result in illegal discharges to the storm drain system as well as acceptable means of performing typical activities. The brochure entitled “Only Rain Down the Storm Drain” is an example of this type of outreach material.
- *Industry-specific brochures and fact sheets:* These publications provide information on source and treatment control BMPs targeted to specific industries. Source controls prevent the pollutant(s) from contacting site runoff or stormwater, and treatment controls remove pollutant(s) already contained in the runoff. The booklet entitled *BMPs for Pressure Washing and Surface Cleaning* is an example of this type of outreach material.

In addition to through direct mailings, as described in Section 2.7, educational brochures and other information will be distributed at displays at County public counters, by inspectors, in conjunction with enforcement, through trade associations and industry suppliers, and during workshops and other events.

The County will continue to partner with BERC, the other permittees, and other organizations to provide industry-specific BMP workshops for businesses and special districts (e.g. fire and water districts) as needs are identified.

### **Effectiveness Assessment**

The County’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities relevant to the Commercial/Industrial Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

Table 3.4-2 presents planned activities for the 2008-13 permit term. Each activity or task has an anticipated effectiveness outcome level of between one and six, as described in Section 2.3. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.4-2 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Opportunities for improvements to this program element will be identified by evaluating inspection, enforcement and outreach-related data. Key Indicators have been selected to demonstrate progress towards meeting program or element goals. These indicators, shown on Table 3.4-2, are intended to be specific, measurable, and attainable, and to the extent possible, consistent with the other permittee SQIPs. The key Indicators will be used to assess the effectiveness of individual permittee programs, as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit. Evaluations may result in recommended changes to the list of priority commercial/industrial facility categories included in the CISC, targeted outreach, or other mid-course program refinements.

### **Relationship to Other Program Elements**

The Commercial/Industrial Element relates to other program elements as follows:

#### **Construction Element (Section 3.3)**

Coordination between the Commercial/Industrial and Construction Elements helps ensure that commercial and industrial facility owners and operators adhere to applicable local and state regulations for erosion and sediment control when engaging in remodeling and other on-site construction activities. Element staff collaborate to provide outreach materials and activities, such as brochures and informational workshops, to construction-related businesses in the county. Permittee staff work with the County's Business Environmental Resource Center (BERC; discussed in further detail later in this section) to provide training workshops for pressure washers and other targeted businesses. Brochures have been developed (in English and Spanish) for concrete, swimming pool, and paint-related businesses. These brochures and other educational materials are distributed at construction workshops and in the field by County construction inspectors.

#### **Municipal Operations Element (Section 3.5)**

Many County-owned facilities such as corporation yards, airports, and waste management facilities, are covered under the State's Industrial General Permit, as discussed in Section 3.5. Therefore, many of the brochures and BMP guidance materials created through the Commercial/Industrial Element for private industries and businesses in the county can also be used to educate and inform managers and staff who maintain and operate County facilities. The Municipal Operations and Commercial/Industrial Element staff work together to provide annual refresher stormwater BMP and awareness training for County employees.

#### **Illicit Discharge Element (Section 3.6)**

There are many businesses addressed by the Commercial/Industrial Element that provide home-related services to residential customers. Examples include carpet cleaning

companies, and landscape and concrete contractors. Activities by such businesses could result in illicit discharges to the storm drain system. Commercial/Industrial and Illicit Discharge Element staff work together to conduct inspections and enforcement in response to complaints and to promote pollution prevention awareness. Common problems include erosion of landscape material stockpiles in public streets and gutters, discharge of concrete and paint wastes into the storm drain and washing dirt and debris from paved surfaces into the drain.

### **Public Outreach Element (Section 3.7)**

Commercial/Industrial Element staff coordinate with experienced public outreach professionals to assist with developing and maintaining high-quality educational and informational materials for targeted industries. Materials are distributed by inspectors during facility inspections, by direct mail (e.g., with enforcement actions or through targeted outreach), during training workshops, at public events and at Permittee permit counters. Educational materials are also distributed through BERC. Brochures and other guidance materials developed for industries identified by the Permittees as commonly employing non-English-speaking workers are translated into other languages.

### **New Development Element (Section 3.8)**

Developers of commercial and industrial properties and facilities are required to implement stormwater quality control measures in their projects, as required by the New Development Element. County staff reviews environmental impact reports, proposed improvement plans, and various use applications for commercial and industrial projects, to ensure that control measures are integrated into project design as required.

County development plan review also helps ensure that non-stormwater sources are not plumbed from new commercial and industrial facilities to the storm drain system unless specifically allowed by the County's Stormwater Ordinance.

## **Coordination within the County of Sacramento**

Successful implementation of the Commercial/Industrial Element requires close coordination with several County entities that regulate or provide assistance to local industries, as described below.

### **County Department of Water Quality**

- *The Wastewater Source Control Section (WSCS)* reviews and inspects the operations of industrial dischargers to the Sacramento Area Sewer District's collection system. They also work with businesses such as dry cleaners, photo processors and radiator repair shops to help them understand local sewer use regulations and wastewater pollution prevention options. WSCS is responsible for ensuring adequate pre-treatment prior to discharging a waste stream to the sanitary sewer. Lastly, they administer short term discharge permits to the sanitary sewer.

Stormwater staff refers businesses that want to discharge to the sanitary sewer to WSCS for guidance.

- *The Water Quality Permit Services Section* is responsible for issuing permits for long term discharges to the Sacramento Area Sewer District's collection system. Stormwater staff refers businesses that want to discharge to the sanitary sewer to Permit Services for guidance.

Coordination with WSCS and Permit Services Section helps to keep commercial and industrial wastes out of the storm drain system.

### **County Environmental Management Department (EMD)**

EMD implements the CISCOP on behalf of the Permittees.

The Permittees coordinate with EMD in many areas, including: providing guidance on implementation of the CISCOP, partnering on outreach events, and conducting coordinated enforcement to address facilities comprehensively (since in many situations EMD may regulate a specific tenant in a complex but not the owner of the complex or other businesses within the complex).

Refer to Section 2.7 for more details on coordination with EMD.

### **County Business Environmental Resource Center (BERC)**

BERC's main mission is to provide confidential environmental compliance assistance and guidance to local businesses in the county upon request. County stormwater staff work with BERC to ensure that accurate stormwater pollution prevention information is provided to local businesses by BERC. Assistance is provided by BERC to develop and distribute guidance materials for selected industries and to work with Industrial General Permit industries to ensure they have ample opportunity to understand and comply with the regulations. BERC conducts a variety of commercial and industrial training workshops each year to inform the regulated community about compliance with local and state stormwater laws, at which County staff are commonly presenters. BERC also developed and maintains a database of businesses in priority industries subject to targeted outreach. The County contributes funding through the Stormwater Utility and EMD to BERC each year.

### **Coordination with Other Agencies and Groups**

County stormwater staff coordinate with various outside agencies and groups that have regulatory and/or economic interests in industries in Sacramento County. This coordination allows for information sharing and ensures that a uniform, consistent message about stormwater pollution prevention is distributed to the regulated community.

- ***Regional Water Board*** — The County coordinates with the Regional Water Board on issues related to Industrial General Permitted industries as well as other businesses. The County initiates investigations of all stormwater problems at businesses referred by the Regional Water Board, within three business days of referral. The County informs the Regional Water Board of all discovered significant violations and of potential General Permit non-filers within 30 days of discovery. The County also supports Regional Water Board actions upon request, by allocating staff, providing documentation of observed problems, etc.

- ***Trade and Business Associations*** — The County cooperates with commercial and industrial businesses through associations and organizations. These associations are provided with outreach materials, information on Industrial General Permit requirements and information on BERC’s compliance assistance program.



**Table 3.4-1 – Sacramento County SQIP  
Commercial/Industrial Element Workplan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Legal Authority											
Evaluate/Amend Stormwater Ordinance	4.f, 5, 9.a.i		Evaluate ordinance; adopt necessary amendments to provide authority to enforce 2008 stormwater permit requirements related to this element.	Confirmation - report revisions in AR	↔	↔	↔◆	↔	↔	↔	one year from SQIP approval
Complaint-Based Stormwater Compliance Program (CBSCP) – County DWR/Stormwater Section											
Maintain enforcement policy	9.a.iii-viii		Maintain enforcement policy	Confirmation - report any formally adopted policy in AR	↔	↔	↔	↔	↔	↔	
Investigate business-related complaints	9.a.iii-viii		Document business-related complaints investigated	Tabulation – track number of complaints investigated	↔	↔	↔	↔	↔	↔	
Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	9.a.iii-viii		Decrease in enforcement actions from one permit cycle to the next	Tabulation – track number of enforcement actions issued	↔	↔	↔	↔	3	↔	Conduct EA in 12/13 before ROWD
Conduct workshops, upon request or as needs are identified, for the regulated community (including special districts such as fire and water districts)	9.a.iii-viii		Document workshops requested and conducted	Tabulation - track number workshops held, number people reached in AR	↔	↔	↔	↔	↔	↔	
CBSCP database - track inspections, enforcement and outreach materials distributed, businesses by category	9.a.iii-viii		Use data adjust and improve program	Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISCOP or Educational Outreach					3		Conduct EA in 12/13 before ROWD
Refer potential Industrial General Permit non-filers to the Regional Water Board	9.a.iii-viii		Document potential non-filers referred to Regional Water Board	Tabulation – Track number of non-filers referred	↔	↔	↔	↔	↔	↔	
Track NOIs filed for potential non-filers referred to the Regional Water Board	9.a.iii-viii		Increase in percentage of non-filers referred to Regional Water Board by County that submit NOIs	Tabulation – Track percentage of non-filers referred that gained coverage					3		Conduct EA in 12/13 before ROWD
Investigate Regional Water Board referrals within 3 working days of receipt of referral	9.a.iii-viii		Document Regional Water Board referrals investigated within specified timeframe	Tabulation – Track number of Regional Water Board referrals investigated	↔	↔	↔	↔	↔	↔	

↔ Ongoing activity/task      ◆ Deliverable or key milestone      ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.4-1 – Sacramento County SQIP  
Commercial/Industrial Element Workplan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Provide enforcement support to Regional Water Board related to, including providing staff for joint inspections when available and appropriate	9.a.iii-viii		Document support efforts	Tabulation – Track number of cases where support was provided to the Regional Water Board	↔	↔	↔	↔	↔	↔	
<b>Outreach</b>											
Develop industry and pollutant-specific educational materials	9.b.iii		Document industry and pollutant-specific educational materials developed	Tabulation - track number of revised/new materials in AR	↔	↔	↔	↔	↔	↔	
Track industry and pollutant-specific materials distributed	9.b.iii		Document industry and pollutant-specific materials distributed	Tabulation - track number materials distributed in AR	↔	↔	↔	↔	↔	↔	

 Ongoing activity/task    
  Deliverable or key milestone    
  Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
 2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

### 3.5 Municipal Operations Element

The primary mission of the Municipal Operations Element is to control stormwater pollution resulting from the operation and maintenance of County-owned facilities. A secondary mission is to set an example of model pollution prevention for the public.

The Municipal Operations Element addresses operation and maintenance of County-owned facilities within the unincorporated County, as well as some infrastructure owned by the cities of Citrus Heights and Rancho Cordova and maintained by the County under contract. The County's operation and maintenance activities take place at either fixed facilities, at a specific location, or are part of field programs that take place over a broader, non-specific area. The Municipal Operations Element goal is to prevent County facilities and operations from causing or contributing to stormwater pollution.

Examples of County-owned fixed facilities include: buildings (e.g. structures, parking lots, and landscaping), corporation yards (e.g. vehicle and equipment maintenance and parking, and materials storage), solid waste facilities (e.g. landfills and transfer stations), and recreational facilities (e.g. regional parks). Examples of County-owned facilities addressed by field programs include transportation facilities (e.g., roads, roadside ditches, medians, and shoulders); drainage collection, transmission, and detention systems (e.g., drain inlets, manholes, pipes, channels, flood control basins, and stormwater pump stations); water quality facilities (e.g., water quality detention basins).

Various Sacramento County agencies operate facilities that are covered by the State General Industrial Permit. Additionally, some operations and maintenance activities are covered by the Aquatic Pesticide General Permit or the Limited Threat Discharges General Permit. County construction projects disturbing one or more acres are subject to the Construction General Permit. Kiefer Landfill is also covered by an Individual NPDES Permit. County agencies and departments with facilities and activities covered under state permits are not only responsible for ensuring compliance with those permits but are also responsible for complying with the requirements of the County's Municipal Separate Storm Sewer System (MS4) Permit.

The Municipal Operations Element does not address facilities operated by or operations conducted by special districts (e.g., fire, parks, reclamation, sanitation, school, vector control, water) or federal or state government agencies (e.g., California Department of Transportation, U.S. Bureau of Reclamation) that are outside the County's jurisdictional control. Special districts within the unincorporated County are addressed through the Commercial / Industrial Element.

#### Pollutants Addressed

The County's activities and requirements under the Municipal Operations Element address a wide variety of pollutants typically found in urban runoff, including the target pollutants previously identified by the Partnership Program (See Chapter 3, Section 3.5.) For the most part, the activities are designed to remove pollutants from the storm drain system, or reduce the contribution of pollutants. However, if not properly conducted, some routine maintenance activities may have the potential to contribute pollutants to stormwater runoff, as described below.

Examples of activities with potential stormwater pollutant sources include: materials storage and handling; waste collection, storage, and disposal; vehicle and equipment parking, maintenance, and washing; road maintenance and street sweeping; drainage pipe, channel, and detention basin repair and cleaning; vegetation control; and construction and retrofit of County facilities.

These activities are properly managed and continually evaluated to reduce the potential for pollutants to be discharged to the storm drain system and/or local receiving waters. Pollutants addressed will vary, depending on the activity. For example:

- Outdoor materials and waste storage and handling areas at County facilities have the potential to contribute oils, greases and sediments to site runoff. Therefore, staff that design, construct, operate, and maintain these public facilities are trained and evaluated on their knowledge, implementation, and management of stormwater Best Management Practices (BMPs).
- Vehicle and equipment maintenance and washing facilities can contribute oils, grease, solvents, petroleum hydrocarbons, and detergents to the storm drain system. These activities are conducted in areas that are not exposed to stormwater and therefore do not deliver non-stormwater discharges to the storm drain system.
- Vehicle and equipment parking areas can accumulate automotive fluids, sediments and debris. Sweeping and oil stain removal are Source Control BMPs implemented prior to each rainy season in parking areas exposed to stormwater contact.
- Construction of new and retrofit of existing County facilities can contribute sediments and construction related pollutants to local receiving waters. Erosion, sediment, and other pollution control measures are installed, inspected and maintained through all phases of construction.
- Cleaning and maintenance of County-owned facilities such as buildings, parking lots, streets, pipes, channels, and detention basins could cause a non-stormwater discharge. BMPs such as protecting storm drain inlets, minimizing the use and capturing of wash water during street and parking lot cleaning, and using integrated pest management techniques that minimize the use and/or toxicity of herbicides for removing vegetation, are implemented.
- Management of vegetation along roadsides and in drainage channels can contribute to pesticides and fertilizers in runoff. BMPs are employed to reduce the amount of chemicals used and training is provided to staff related to proper application and handling methods.

## **Municipal Operations Strategies**

The County employs the following strategies to minimize potential adverse environmental impacts:

- Conduct targeted employee training, provide technical assistance for managers and contractors, and create/implement Municipal Storm Water Pollution Prevention Plan (Municipal SWPPP) at selected facilities.

- Evaluate Municipal SWPPPs, facilities and field activities in order to recommend new or improved BMPs; and
- Create and maintain record keeping tools that provide data for effectiveness assessments and continuous improvement.

These combined efforts help ensure countywide compliance with the stormwater permit in order to reduce stormwater pollution to the maximum extent practicable.

Each of these strategies are explained in greater detail in the following paragraphs.

### **Educate County Employees and Contractors**

Outreach and training targets several audiences:

- County designers and design consultants are provided guidance related to the selection and design of stormwater quality controls for new and redevelopment public projects.
- Contractors working on County projects are required to comply with the County's Land Grading and Erosion Control Ordinance (Grading Ordinance) and the State Construction General Permit. Information is presented through training workshops and other educational materials. Refer to Section 3.3 for more details.
- Targeted employees are educated about proper housekeeping practices and the selection and implementation of appropriate stormwater quality BMPs through presentations at staff meetings and site visits by County stormwater staff (discussed later in this section). Guidance materials are developed or obtained from other agencies (e.g., statewide BMP guidance manuals, Caltrans, etc.) and distributed to demonstrate proper techniques. Technical assistance is also provided through periodic evaluations of work-sites or Municipal SWPPPs to identify problems and adjust BMPs.
- Maintenance personnel are educated about conducting maintenance in a way that prevents discharges to the storm drain system and protects local creeks and rivers. This education is done primarily through staff meetings, annual training, one-on-one correspondence and written guidance materials.

### **Evaluate and Continuously Improve Operations**

Evaluations are conducted by collecting and reviewing records, data, and/or Municipal SWPPPs; conducting site and field evaluations; and/or conducting surveys of County staff to assess employee awareness and program effectiveness. The goal is to continuously improve stormwater pollution prevention.

### **Maintain Records and Documentation**

Recordkeeping and reporting helps demonstrate compliance with the stormwater permit and provides data for evaluating and improving activities. Each department and group in the County maintains their own recordkeeping system and supplies data and information to the County stormwater staff at least annually for incorporation into the October 1 Annual Report. County stormwater staff maintains records related to employee training and evaluations conducted. Every attempt is made to quantify efforts in ways that relate

to protection of water quality. For example, records of the tonnage or volume of wastes removed from street sweeping and storm drain system maintenance are recorded in order to demonstrate the County's goal to reduce the amount of such material discharged downstream to local creeks and rivers.

### **Accomplishments to Date**

Since the inception of the Program in 1990, the County has made the following accomplishments related to the Municipal Operations Element:

- Provided education and outreach to various designers of County projects who now include specific requirements intended to ensure compliance with local and State stormwater quality regulations in their project specifications
- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., County maintenance staff routinely log the quantity of pipes, channels, basins, sumps, drop inlets, manholes, and roadways cleaned)
- Worked with local environmental groups to determine alternative environmentally-friendly ways to conduct overbank cleaning of natural creeks and streams
- Evaluated priority facility operations and maintenance activities to identify improved BMPs and provided outreach and training to staff in targeted positions
- Provided assistance to County facilities subject to the Industrial General Permit relative to reviewing SWPPPs, evaluation of facility operations, and recommendation of improved BMPs, as requested
- Provided assistance to County agencies, departments, divisions, and sections related to compliance with the State's Aquatic Pesticides General Permit
- Implemented cleaning and maintenance programs for prioritized streets and parking lots
- Stenciled 95% of all storm drain inlets located within the County's boundaries with a "No Dumping – Drains to Creek" message
- Stormwater staff developed and distributed door hangers to be used by stormwater staff and field crews to educate the public about stormwater quality and to elicit reporting in the vicinity of illicit discharges
- Implemented the Parking Lot Inspection and Maintenance Program. Assisted County agencies with establishing inspection procedures and maintenance activities
- Adopted the County-wide Integrated Pest Management Policy
- Coordinated with Sacramento County Aircraft Rescue Fire Fighting (ARFF) to establish BMPs for non-emergency fire fighting flows

- Created and maintained Municipal SWPPPs at County corporation yards and other facilities conducting vehicle maintenance or material storage that have the potential to discharge pollutants to the storm drain system or local waterways

### **Activities for the 2008–13 Stormwater Permit Term**

This section describes Municipal Operations Element activities for the 2008–13 permit term, developed to comply with stormwater permit requirements.

Table 3.5–1 at the end of this section outlines the activities that will be conducted under the Municipal Operations Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

Municipal operation activities may fluctuate considerably over the course of the permit term due to budget constraints resulting from economic conditions outside of the County's control. Any changes to maintenance activities, frequency of maintenance activities, or adjustments to programs will be described in annual work plans and annual reports.

The following describes the major activities in more detail:

#### **Illicit Discharge Response**

County crews will respond to reported illegal discharges and conduct first response activities, containment, cleanup, and disposal of materials for non-hazardous and hazardous pollutant discharges to the storm drain system.

#### **New Development and Construction Requirements for Municipal Projects**

The County will continue to implement New Development Standards at Municipal projects as required by the County's development standards (see Section 3.8). The County will comply with the Construction Program Element requirements during Municipal Capital Improvement Projects, and projects disturbing one or more acres will obtain coverage under the General Construction Permit.

#### **Facility Management**

Municipal SWPPPs were developed during the 2002–2007 permit term for all County facilities not covered under the General Industrial Permit that are vehicle maintenance facilities, material storage facilities and corporation yards having the potential to discharge pollutants to the storm drain system. Municipal SWPPPs will be evaluated twice during the 2008–2013 permit term in order to assess the effectiveness of the Municipal SWPPP implementation. BMPs will be adjusted if found to be inadequate and the Municipal SWPPP will be updated to address any BMP modifications. A database will be used to track the number and types of facilities, operating agency, evaluations performed, including the frequency of evaluations.

#### **Landscape and Integrated Pest Management**

The County will continue to implement the Integrated Pest Management (IPM) Policy and conduct pesticide storage, usage and disposal procedures as described in the Sacramento Stormwater Quality Partnership Pesticide Plan. Pest management activities

associated with County operations and County-owned facilities and property shall be in accordance with the principles of the County's IPM Policy, State and Federal pesticide use laws and regulations, and the Municipal Stormwater Permit. Stormwater staff will continue to oversee the implementation of pesticide management and other IPM strategies as part of the landscape management activities and operation of recreational facilities. Refer to Appendix 3B for a copy of the County-wide Integrated Pest Management Policy.

### **Storm Drain Operations and Maintenance**

The County will conduct storm drain operation and maintenance in accordance with the manhole and pump station sump maintenance procedures based upon the following criteria:

- The manhole's proximity to sensitive receiving waters
- The manhole's proximity to regional stormwater quality BMPs (e.g., water quality detention basin)
- The presence or absence of downstream manholes or sumps.
- High priority manhole sumps will be inspected annually, prior to the rainy season, and cleaned based upon inspection findings. The remainder will be cleaned during regular maintenance program activities.

Refer to Appendix 3C for a copy of the Sacramento County Procedures for Manhole and Pump Station Sump Inspection and Cleaning.

The County of Sacramento maintains creeks and channels within the unincorporated portions of the County, and in the Cities of Citrus Heights and Rancho Cordova. Visual inspections are performed annually of creeks and channels to check for erosion, vegetation, debris, illicit connections and flow obstructions. Refer to Appendix 3D for a copy of the Sacramento County Guidelines for Operating and Maintaining Creeks and Channels.

Stormwater staff will continue to evaluate the storm drain operation and maintenance activities to ensure that proper BMPs are implemented, storm drain inlet markers are replaced when illegible, and adequate record keeping is performed to capture overall maintenance activities and quantities of waste removed.

### **Storm Drain Stenciling**

The County labeled 95% of storm drain inlets with the "No Dumping" message during 2002 – 2007 permit term. As part of the drainage system maintenance activities, the County will continue to ensure that drain inlets are labeled and existing labels replaced if illegible.

### **Street and Road Maintenance**

The County of Sacramento Department of Transportation implemented a street sweeping prioritization schedule according to the frequency schedule required in the 2002–2007 permit. Since then, the Department of Transportation increased the sweeping frequency during the 08/09 fiscal year for priority C streets to once every other month. The



## **Street and Road Maintenance**

The County of Sacramento Department of Transportation implemented a street sweeping prioritization schedule according to the frequency schedule required in the 2002-2007 permit. Since then, the Department of Transportation increased the sweeping frequency during the 08/09 fiscal year for priority C streets to once every other month. The Sacramento County Street Sweeping Prioritization Guidelines were updated in July 2008 to address the increase in sweeping frequency for priority C streets. Refer to appendix 3E for a copy of the July 2008 Sacramento County Street Sweeping Prioritization Guidelines.

Sacramento County currently follows this street sweeping prioritization schedule:

- Priority A: Swept once per month
- Priority B: Swept once every other month
- Priority C: Swept once every three months

Stormwater staff will annually review and report the total amount of waste removed from street sweeping activities and conduct evaluations of maintenance activities to ensure that BMPs are implemented during street cleaning and roadway maintenance operations. Such evaluations will help ensure that BMPs are implemented to prevent street sweeper rinse out water, concrete chute rinse water, and saw cut slurry from entering the storm drain system.

## **Parking Facilities Management**

The County will continue to perform its Parking Lot Maintenance Program established during the 2002-2007 permit. The primary objective is to inspect parking facilities to assess maintenance needs, and perform the necessary maintenance prior to October 1st of each year in order to reduce source pollutants.

The County of Sacramento Department of General Services conducts facility management for County owned and operated facilities. The Department of General Services oversees the parking facilities management program at their facilities. Refer to Appendix 3F to view a copy of the Department of General Services Parking Facilities Management Program document. In addition to the facilities maintained by the Department of General Services, Sacramento County Airport Systems also conducts a parking lot maintenance program at the facilities they own or operate. Refer to Appendix 3G to view a copy of the Sacramento County Airport Systems Parking Facilities Management Program document.

Stormwater staff will continue to coordinate with the Department of General Services and Sacramento County Airport Systems to ensure that appropriate BMPs are implemented during maintenance activities and to collect data required for the Annual Report.

### **Non-Emergency Fire Fighting Flows**

The Sacramento County Aircraft Rescue Fire Fighting (ARFF) Division provides all fire fighting services within the Sacramento County Airport Systems. Municipal Operations Element will oversee the activities conducted by ARFF to ensure compliance with the NPDES permit requirements during non-emergency fire fighting activities. Activities associated with Sacramento Metro Fire District will be addressed through the Commercial and Industrial Element. Stormwater staff will continue to assist Sacramento County ARFF staff with preventing non-emergency flows from entering the storm drain system during training and maintenance activities. ARFF staff will continue to implement the BMPs established during the 2002 – 2007 permit. Refer to appendix 3H to view a copy of the Stormwater Best Management Practices for Sacramento County Aircraft Rescue Fire Fighting.

### **Employee Outreach and Training**

Stormwater staff provides annual stormwater pollution prevention training for employees in targeted positions. Targeted employees will receive training related to stormwater pollution prevention, BMP identification and implementation, proper housekeeping practices, as well as identification and reporting of illicit discharges and connections. Stormwater staff will continue to provide annual training and will conduct employee awareness surveys during the 2008 – 2013 permit term to assess employee awareness levels and training effectiveness. Survey results will be submitting in the annual report at the end of the permit term.

### **Detention Basin Maintenance**

The County will continue to maintain detention basins within its jurisdiction according to the Sacramento County Detention Basin Maintenance Manual.. Any changes to the Detention Basin Maintenance Program will be will be described in annual work plans and annual reports.

Stormwater staff will continue to evaluate, and adjust guidelines for operation and maintenance of water quality detention basins, catch basins and sumps in order to minimize the discharge of pollutants during maintenance activities.

Refer to appendix 3I for a copy of the Sacramento County Detention Basin Maintenance Guidelines, and appendix 3J to view a copy of the County's Standard Protocol for Application of Herbicides and Pesticides for use at Creeks, Channels and Detention Basins.

### **Emergency Procedures**

Stormwater staff will continue to work with targeted departments to ensure that during emergency responses to repair essential public services and infrastructures, that stormwater BMPs are implemented to the extent that measures do not compromise public health and safety. Emergency procedures and stormwater BMPs are addressed during employee training.

## **Waste Management Services**

The County of Sacramento Department of Waste Management and Recycling is responsible for maintaining a waste management system for residents and businesses in the Sacramento County area including garbage recycling and collection services, garbage disposal and recycling facilities, and recycling programs. Green waste bins are provided to all residents ensuring that all green waste material is contained until time of disposal. Curbside pickup is provided to County residents for bulky household waste, used motor oil and electronic waste. Additionally, household hazardous wastes are accepted at Kiefer Landfill and at the North Area Transfer Station free of charge. All waste is disposed of at the appropriate landfill and disposal sites. Quantities of household hazardous wastes are collected and reported in the Annual Report under the Illicit Discharge Element section. Refer to the Illicit Discharge element for further detail of reported household hazardous wastes.

## **Effectiveness Assessment**

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the Municipal Operations Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

Table 3.5-1 presents planned activities for the 2008-13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.5-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Opportunities for improvements to this program element will be identified by evaluating the data from Municipal SWPPP evaluations, employee training and maintenance activities performing sediment, waste and debris removal. Key Indicators have been selected to demonstrate progress towards meeting program or element goals. These indicators, shown on Table 3.5-1, are intended to be specific, measurable, and attainable, and to the extent possible, consistent with the other permittee SQIPs. The key Indicators will be used to assess the effectiveness of individual permittee programs, as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit. Evaluations may result in recommended changes to Municipal SWPPPs, training material, maintenance activities or other mid-course program refinements.

## **Relationship to other Program Elements**

The Municipal Operations Element relates to other elements as follows:

### **Construction Element (Section 3.3)**

State regulations require that County construction projects disturbing one acre or more of land be covered under the State's Construction General Permit. The Construction General Permit calls for preparation and implementation of SWPPPs to describe erosion and other stormwater controls at the site, including inspection and maintenance for the BMPs.

Typically the SWPPPs are prepared and implemented by the County's prime contractor or his/her subcontractor, but SWPPP certification, review and oversight is provided by a County official and the responsible County project manager.

County inspectors, however, are not authorized to enforce the State Construction General Permit. For this reason, the County may also require separate erosion and sediment control plans for its projects, which are enforceable by the County inspectors.

Project specific training about construction stormwater pollution prevention requirements is provided to County designers, project managers, inspectors, and contractors, as described in Section 3.3.

### **Commercial/Industrial Element (Section 3.4)**

The County operates industrial-like facilities such as the corporation yard, therefore, the educational materials developed for the commercial/industrial target audiences described in Section 3.4 would apply to some County managers and staff as well. The County strives to set an example for local businesses and industries by ensuring that County facilities comply with the same requirements that apply to private commercial and industrial facilities in unincorporated Sacramento County.

### **Illicit Discharge Element (Section 3.6)**

If not properly controlled, accidental or illegal non-stormwater discharges and spills could end up in the County's storm drain system. From here, the pollutants could migrate to local creeks and rivers. Designated staff in the Transportation and Water Quality Departments respond to reports of possible illicit discharges. These specially trained staff will investigate and cleanup the materials and report the incident to the stormwater staff in the Department of Water Resources for further investigation and enforcement.

Other County maintenance personnel are also trained about how to identify potential illicit discharges and refer the problem for investigation and cleanup (see Section 3.6).

### **Public Outreach Element (Section 3.7)**

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to various County audiences through workshops, correspondence, and educational materials so that all targeted staff receives the important message of protecting stormwater quality.

### **New Development Element (Section 3.8)**

County planners, designers and their consultants are educated about stormwater quality and flow control requirements applicable to redevelopment of County facilities and are provided guidance such as the Stormwater Quality Design Manual discussed in Section 3.8.

### **Coordination within the County of Sacramento**

The Municipal Operations Element regularly coordinates with the other agencies, departments, divisions, and sections listed in Table 3.2-1 located in Section 3.2.

### **Coordination with Other Agencies and Groups**

The County coordinates with the other Permittees, stormwater programs, and local, state, and federal agencies to share information and strategies related to operation and maintenance of County facilities.

**Table 3.5-1 – Sacramento County SQIP  
Municipal Operations Element Work Plan for 2008-2013**

Activity/Task	Permit	Key	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
	Ref	Indica			FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Illicit Discharge Response											
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.		Refer to Illicit Discharge Element		↔	↔	↔	↔	↔	↔	
New Development and Construction Requirements for Municipal Capital Improvements Projects											
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i		Refer to Construction and New Development Elements		↔	↔	↔	↔	↔	↔	
Facility Management											
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii., 10.b.ii.		Implement Municipal SWPPPs at facilities not covered under the State General Industrial Permit.	Confirmation / Tabulation- Track number of Municipal SWPPPs	↔	↔	↔	↔	↔	↔	
Conduct Municipal SWPPP evaluations twice during Permit term.			Document site evaluations performed	Confirmation / Inspection- Conduct two site evaluations during Permit term. First round of evaluations to be conducted during first year of permit term.		◆			◆		

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.5-1 – Sacramento County SQIP  
Municipal Operations Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Maintain database for tracking of facilities, activities, evaluations and correspondence with facility managers			Provide BMP and activity modification guidance to implementing departments	Tabulation - Track Municipal SWPPP programs	↔	↔	↔	↔	↔	↔	
Assess Municipal SWPPP effectiveness.		✓	Identify changes in BMP implementation and employee behavior. First assessment to be conducted in FY 09/10.	Tabulation / Inspection - Track Municipal SWPPP modifications		1			3		
<b>Integrated Pest Management Program</b>											
Implement integrated pest management (IPM) and pesticides storage, usage, and disposal procedures as described in the Pesticide Plan	10.a.iv., 10.b.iii.		Decrease amount of pesticides used by County staff	Confirmation - Track agencies implementing IPM policy	↔	↔	↔	↔	↔	↔	
			Document number of agencies and IPM programs implemented	Tabulation - Track IPM programs	↔	↔	↔	↔	↔	↔	
Ensure proper pesticides storage, usage, and disposal practices			Minimize contact with rain water and potential for spills	Confirmation	↔	↔	↔	↔	↔	↔	
Continue to implement standardized protocols for routine and non-routine application of pesticides, herbicides and fertilizers			Ensure staff are complying with the County's standardized protocols for routine and non-routine application of pesticides, herbicides and fertilizers	Confirmation - Track County groups that apply pesticides, herbicides and fertilizers	↔	↔	↔	↔	↔	↔	
<b>Storm Drain System Maintenance</b>											
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding	10.a.v., 10.b.iv.	✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	

↔ Ongoing activity/task    ♦ Deliverable or key milestone    2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.5-1 – Sacramento County SQIP  
Municipal Operations Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Clean prioritized catch basins and sumps		✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	
Visually monitor Permittee owned open channels and perform maintenance to remove sediment and accumulated trash		✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	
<b>Storm Drain Stenciling Program</b>											
Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system	10.a.vi		Document number of storm drain inlets labeled by County Crews	Confirmation - Document Stenciling Program	↔	↔	↔	↔	↔	↔	
			Replace illegible storm drain markers with new markers	Tabulation - Track number of inlets marked each year	↔	↔	↔	↔	↔	↔	
<b>Street Sweeping Program</b>											
Conduct street sweeping activities	10.a.vii, 10.b.v.	✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	↔ 4	
Clean streets according to County-established procedures			Document prioritized streets	Tabulation - Track number of streets and miles swept	↔	↔	↔	↔	↔	↔	
Prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and saw cutting slurry from discharging to the storm drain system.			Implement BMPs during road maintenance and construction activities	Confirmation / Inspection - Identify BMPs implemented	↔	↔	↔	↔	↔	↔	




↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data



**Table 3.5-1 – Sacramento County SQIP  
Municipal Operations Element Work Plan for 2008-2013**

Activity/Task	Permit	Key	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
	Ref	Indica			FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Parking Lot Maintenance											
Maintain Permittee-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	10.a.viii., 10.b.vi.		Document number of parking lots maintained and type of maintenance performed	Tabulation - Track number of facilities and activities performed	↔	↔	↔	↔	↔	↔	
			Evaluate Parking lot maintenance programs	Confirmation / Inspection - Identify BMPs implemented	↔	↔	↔	↔	↔	↔	
Non-Emergency Fire Fighting Flows											
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant source of pollutants to waters of the State. The response plan and BMPs shall be updated and submitted with the Annual Reports.	10.a.ix. , 10.b.ix.		Ensure Sacramento County Aircraft Rescue Fire Fighting implements BMPs during non-emergency flows	Confirmation - Document that BMPs are implemented	↔	↔	↔	↔	↔	↔	

 Ongoing activity/task    
  Deliverable or key milestone    
  Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
 2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.5-1 – Sacramento County SQIP  
Municipal Operations Element Work Plan for 2008-2013**

Activity/Task	Permit	Key	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
	Ref	Indica			FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Employee Training											
Conduct training to targeted employees to increase awareness of BMPs/pollution prevention practices	10.a.x, 10.b.x		Conduct annual refresher training	Tabulation - Track number of employees trained and training activities	◆	◆	◆	◆	◆	◆	
Assess effectiveness of employee training.	10.a.xi, 10.b.xi	✓	Maintained/Increased employee awareness as measured by surveys during annual training. First survey to be conducted in FY 11/12.	Surveys – measure raised awareness based on quizzes at training events	①	①	①	②	②	①	
Detention Basin Maintenance											
Implement Detention Basin Operation and Maintenance Program	10.b.vii.		Evaluate program to ensure that adequate BMPs are implemented	Confirmation / Tabulation-Track number of activities modified	↔	↔	↔	↔	↔	↔	
Emergency Procedures											
BMPs shall be implemented during emergency responses to minimize pollutants discharged to the storm drain system as long as it does not compromise public health and safety.	10.b.viii.		Increase awareness of BMP implementation during emergency responses	Confirmation	↔	↔	↔	↔	↔	↔	

↔ Ongoing activity/task      ◆ Deliverable or key milestone      ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

## 3.6 Illicit Discharge Element

The primary mission of the Illicit Discharge Element is to effectively eliminate illegal non-stormwater discharges to the County's storm drain system and local creeks and rivers.

The goal of the Illicit Discharges Element is to comply with the requirements of Provision 11 of the Stormwater Permit by reducing the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges from non-commercial sources.

The storm drain system consists of a network of drain inlets, manholes and pipes, as well as streets, sidewalks, gutters and roadside ditches, which discharge to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Illicit discharges can result from dumping of liquid or solid wastes into the storm drain system, or from allowing pollutants to come into contact with stormwater (or stormwater runoff) where they are then transported into the storm drain system.

Examples of illicit discharges include:

- Draining used motor oil or other automotive fluids into the gutter or storm drain inlet
- Washing off paint brushes or concrete tools without containing the wastewater
- Dumping garbage or other wastes into drainage channels and creeks
- Allowing leaking automotive fluids to accumulate on a driveway or street and get washed into the nearest drain inlet during the next rain event

Many sources of illicit discharges can be readily observed by the trained eye. Illicit connections, however, are sources of illicit discharges that are often not visible to the passer by. An illicit connection occurs when a wastewater or process water source is illegally plumbed directly to the storm drain system (often underground to a drain inlet, manhole or pipe). In order to detect illicit connections it is often necessary to enlist the help of the County crews that operate and maintain the storm drain system. Examples of illicit connections include:

- Washing machine wastewater plumbed to a roadside ditch
- Septic system plumbed to a drainage channel
- Indoor floor drain connected to a drain inlet
- Outdoor wash area connected to a manhole

Any material dumped or discharged into the County's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

## **Pollutants Addressed**

The County's activities and requirements under the Illicit Discharge Element address virtually every pollutant commonly found in urban runoff. The type and amount of pollutants addressed will depend on the source(s) of the pollutants. For example, detergents would be addressed in cases where County staff identified and eliminated illicit discharges created by a household discharging washing machine wastewater to the County's storm drain system.

## **Illicit Discharges Element Strategy**

The three major components to the County's strategy for eliminating illicit discharges are as follows:

- Maintain an effective Stormwater Ordinance and other local regulation to prohibit illicit discharges
- Educate County staff and the public about how to identify and report illicit discharge problems and maintain a hotline for public reporting of problems
- Conduct investigations and enforcement of the Stormwater Ordinance to eliminate illicit discharges/connections detected by way of reports from the public and/or County maintenance crews conducting ongoing screening for illicit discharges/connections

Each of these strategy components is explained in the following paragraphs.

### **Maintain an Effective Stormwater Ordinance**

In 1998, the County adopted a Stormwater Ordinance that prohibits discharges of pollutants into the County's storm drain system (Sacramento County Code 15.12; see Section 3.2). The term "pollutants" is widely defined to include a range of materials and wastes. Most non-stormwater discharges and all illicit connections are prohibited. The County Executive issued a memorandum in 2000 authorizing all County employees to enforce the Stormwater Ordinance.

The Stormwater Ordinance was updated twice during the 2002–07 permit term and will be updated, as needed, during the 2008–13 permit term.

### **Educate County Staff and the Public**

The County provides education at many levels — with the general public, contractors, business owners, and County maintenance crews — regarding ways to prevent and report potential illicit discharges and connections to the County for investigation. Most informational materials (e.g., brochures) developed by the County and all media pieces include the County's hotline number (875-RAIN) for reporting of problems. All joint program outreach uses a joint reporting hotline number (808-4H2O), which forwards the caller to 875-RAIN for the unincorporated county. Response and notification procedures are followed to facilitate quick response and cleanup to protect the storm drain system and local waterways.

## **Investigate Reports of Illicit Discharges/Connections and Enforce the Stormwater Ordinance**

County staff that conducts routine maintenance of the storm drain system is trained to look for, identify, and report suspicious discharges to County responders and the stormwater staff. Following cleanup by response personnel, County stormwater staff conducts investigations to try to determine the source(s) of the pollutants. If a commercial/industrial site is suspected, inspections may be conducted at the facility to further investigate and verify the source. If the facility is one the priority industries included in the County Environmental Management Department's (EMD's) stormwater compliance program, EMD inspectors then conduct follow-up investigations. Once source(s) have been verified, progressive enforcement is conducted to eliminate the illicit discharge and pollutant sources.

To prevent the installation of new illicit connections during new development and redevelopment activities, County building inspectors check that selected areas of facilities are properly connected to the sanitary sewer system, rather than the storm drain system. This includes waste storage areas, vehicle and equipment wash areas, maintenance shops/bays, etc.

## **Accomplishments to Date**

The following highlights major accomplishments of the Illicit Discharge Element since 1990:

- During the early part of the Program (1990–1995), the County conducted a field screening program. Outfalls to channels were investigated in the field for possible illicit discharges/connections, and follow-up was conducted to eliminate problems. No illicit connections were identified through this program; however, one ongoing illicit discharge was identified and eliminated.
- In 1998 the County Board of Supervisors adopted the County's Stormwater Ordinance, which makes most discharges to the storm drain system illegal (some exceptions are noted). Additional details about the Stormwater Ordinance are provided in Section 3.2. The County also delegated responsibility for enforcement of the Stormwater Ordinance to other County agencies outside of the Municipal Services Agency. The Stormwater Ordinance was revised twice during the 2002–07 permit term.
- Ninety-five percent of storm drain inlets in existing areas of the County were stenciled with the “No Dumping — Drains to Creek” message, primarily using volunteers. As required by the County's Improvement Standards, permanent “No Dumping” stamps were applied to all new concrete storm drain inlets, beginning in the mid 1990's.
- In 1999, the County Consolidated Utilities Billing System (CUBS) Nuisance Abatement Hotline began accepting calls from the public to report illicit discharges. This number is still in operation and the public also has the option of submitting online reports. Calls related to illicit discharges are forwarded to stormwater staff.

- In 2000, operators of the County’s drainage complaint hotline (875-RAIN) began accepting and referring public reports of illicit discharges and other stormwater problems to the stormwater staff.
- In 2005, the permittees began using 808-4H2O for all joint outreach efforts. Illicit discharge complaints from the unincorporated county received through this hotline are directed to 875-RAIN.
- In 2006, stormwater staff began accepting calls on the internal county Stormwater Quality Hotline (874-4SWQ) which is advertised to crews during training workshops as the number to call for investigation and enforcement support related to Stormwater Ordinance violations.
- During the 2002–07 permit term, stormwater staff developed and distributed door hangers. The door hangers were designed to be used by stormwater staff and field crews to help educate the public about stormwater quality and to elicit reporting in the vicinity of illicit discharges, or a response and mitigation by a culpable party. The door hangers contain pockets where outreach brochures can also be provided where appropriate. Re-sealable envelopes that are printed with guidance to field crews on how to properly use the door hangers, illicit discharge response procedures, and information on reporting requirements are also distributed with the door hangers.

### **Activities for the 2008–13 Permit Term**

This section describes Illicit Discharge Element activities for the 2008-13 permit term, developed to comply with stormwater permit requirements.

Table 3.6-1 at the end of this section outlines the activities that will be conducted under the Illicit Discharge Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following describes the major activities in more detail:

#### **Legal Authority**

The County’s Stormwater Ordinance provides legal authority for regulating pollutant discharges to the storm drain system. Within one year of Regional Water Board approval of the SQIP, the Stormwater Ordinance will be evaluated, and necessary amendments will be made to provide adequate authority to enforce requirements of the 2008 stormwater permit.

#### **Reporting of Potential Stormwater Ordinance Violations**

Both 875-RAIN and the CUBS Nuisance Abatement Hotlines will be maintained for reporting by the public of potential illicit discharges/connections. The internal 874-4SWQ hotline for crews to access stormwater staff for investigation and enforcement support will also be maintained.

### **Screening for Illicit Connections**

Maintenance crews will continue to screen for illicit connections to the storm drain system as part of their regular maintenance activities. Screening procedures will be maintained to most effectively utilize County staff to detect illicit connections to the storm drain system. These procedures are provided in Appendix 3K.

### **Investigation**

Stormwater staff will continue to investigate reports of illicit discharges and connections, with the support of maintenance crews. Maintenance crews are utilized when assistance is needed for activities such as illicit discharge cleanup responses, recording videos of storm drain pipes, or illicit connection removal.

Reports of non-hazardous illicit discharges (including active illicit connections) will be investigated within five business days and illicit discharges suspected of being hazardous (including active illicit connections) within one business day of discovery.

Reports of illicit connections not actively discharging to the storm drain system and suspected illicit discharges/connections indicated by evaluations of dry weather monitoring data will be investigated within 21 business days.

### **Response, Containment and Cleanup**

County crews will continue to provide response, containment and cleanup of illicit discharges to the storm drain system. Whenever possible, the discharger and/or property owner will be required to immediately cease any discharges and will be required to conduct cleanup of pollutants discharged and/or pollutant sources. When this cannot be accomplished, and in urgent situations, County crews will clean up the pollution, take steps to eliminate the pollutant source and pursue cost recovery on behalf of the department(s) providing response. The procedures for the County's Department of Transportation's response and cleanup of hazardous or unknown material and waste spills and the Area Plan for Emergency Response to Hazardous Materials Incidents are provided in Appendix 3L and 3M, respectively. Response, containment and cleanup procedures will be maintained throughout the 2008–13 permit term.

### **Enforcement**

The County will continue to conduct progressive enforcement to obtain compliance in accordance with the County Stormwater Ordinance and will maintain a progressive enforcement policy to compliment the enforcement-related procedures contained therein.

### **Data Management**

Stormwater staff will maintain a database that tracks complaints, referrals, inspections and enforcement actions. Locations of illicit discharges and connections will be plotted on a map which may be used to help identify targeted areas for outreach or to support investigations of potential illicit connections indicated by evaluation of dry weather monitoring data. A copy of this map will be provided in Annual Reports.

## **Outreach**

Stormwater staff will continue to develop and distribute educational brochures and other materials to educate the public on how to conduct their activities in accordance with the Stormwater Ordinance and to encourage public reporting of those responsible for violating the Stormwater Ordinance. Outreach materials will be distributed in conjunction with investigation and enforcement actions as well as at outreach events.

## **Training**

County staff involved in response, containment cleanup and reporting of illicit discharges/connections and ongoing screening for illicit connections will continue to be trained annually during the 2008–13 permit term.

## **Provide Disposal Options for Disposal of Toxic Substances**

The County will continue to maintain its household hazardous waste drop-off center located at the North Area Recovery Station and provide links on our website for other toxic waste disposal facilities within the County. The Department of Waste Management and Recycling will continue their program for curbside collection of used motor oil. Quantities of toxic substances collected will be presented in annual reports.

## **Effectiveness Assessment**

The County’s general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the Illicit Discharge Element, including proposed methods for evaluating effectiveness and baseline data requirements for 2008–13 permit term.

Activities from the 2002–07 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for the 2008–13 permit term activities.

Table 3.6-1 presents planned activities for the 2008–13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.6-1 shows the years in which focused assessments will be conducted to determine if a higher outcome level has been attained.

Opportunities for improvements to this program element will be identified by evaluating complaint, investigation, enforcement, household hazardous waste collection, and outreach-related data. Key Indicators have been selected to demonstrate progress towards meeting program or element goals. These indicators, shown on Table 3.6-1, are intended to be specific, measurable, and attainable, and to the extent possible, consistent with the other permittee SQIPs. The Key Indicators will be used to assess the effectiveness of individual permittee programs, as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit. Evaluations may result in recommended changes to outreach efforts, or other mid-course program refinements.



## **Relationship to Other Program Elements**

The Illicit Discharge Element relates to the other program elements as follows:

### **Industrial Element (Section 3.4)**

There are many businesses addressed by the Industrial Element that provide home-related services to residential customers. Examples include carpet cleaning companies, and landscape and concrete contractors. Activities by such businesses could result in illicit discharges to the storm drain system.

Industrial and Illicit Discharge Element staff work together to conduct inspections and enforcement in response to complaints and to promote pollution prevention awareness. Common problems include erosion of landscape material stockpiles in public streets and gutters, discharge of concrete and paint wastes into the storm drain and washing dirt and debris from paved surfaces into the storm drain system.

### **Municipal Operations Element (Section 3.5)**

County personnel responsible for operating and maintaining County facilities and the storm drain system are required to attend annual training. The training educates them about ways to minimize pollutant discharges to the storm drain system during operation and maintenance activities, as well as procedures for detecting, reporting and clean-up of spills, illicit discharges, and illicit connections to the County's storm drain system. County facility operators are educated about how to employ BMPs to effectively address pollutant sources associated with their activities. Examples include information about the use of appropriate BMPs during vehicle washing and maintenance and proper storage and disposal of materials and waste products. The County's goal is to be a model of pollution prevention for the rest of the community.

The Municipal Operations Element includes an activity to ensure that 95% of the County's storm drain inlets are stenciled with "No Dumping" messages. This activity helps to educate the public that pollutants do not belong in storm drains and over time will hopefully help to reduce the number of illicit discharge incidents.

### **Public Outreach Element (Section 3.7)**

Stormwater staff working on the Illicit Discharge Element assists the County's public outreach staff to design educational materials which include information on how to identify and report suspected illicit discharges to the County's hotline number. The materials also include information on alternatives for safe disposal of household hazardous wastes and recycling programs. Illicit Discharge Element staff also attends public events and demonstrate — using tools such as the educational watershed model for kids — how illicit discharges and connections in the urban environment can impair water quality.

### **New Development Element (Section 3.8)**

The County development plan review process ensures that non-stormwater sources are not connected to the storm drain system unless specifically allowed by the County's Stormwater Ordinance. Such discharges are typically discharged to the sanitary sewer under agreement with the Sacramento Regional County Sanitation District (SRCSD) and Sacramento Area Sanitation District (SASD).

### **Coordination within the County of Sacramento**

Almost all Illicit Discharge Element activities involve partnership with other County Departments. The Illicit Discharge Element relies heavily on the activities of other County groups to carry out its mission. The following describes the interaction of the Illicit Discharge Element with activities of other County entities:

#### **Maintenance and Operations Crews**

County maintenance crews and other personnel within the Departments of Water Resources, Transportation, Waste Management and Recycling, and Water Quality may encounter spills and other illicit discharges during their routine maintenance activities. Water Resources and Transportation crews conduct first response activities, containment, cleanup, and disposal of materials for non-hazardous and hazardous pollutant discharges to the storm drain system, respectively. Their activities are followed up with reports to stormwater staff for tracking, investigation and enforcement purposes.

#### **Plan Reviewers**

Plan reviewers in various County departments and County building inspection staff may also detect proposed or newly constructed illicit connections. Following action to eliminate the connection, such findings are reported to County stormwater staff.

#### **Waste Management and Recycling**

County solid waste programs provide various disposal options to the general public that help reduce illegal dumping into the storm drain system and local creeks and rivers. These programs include household hazardous waste events and collection centers; battery, oil, and paint recycling centers; and curbside recycling of used motor oil. The County also has a Conditionally Exempt Small Quantity Generator Program to allow small businesses to dispose of their hazardous waste, since they are not allowed to use residential household hazardous waste events. County stormwater staff collects data on the quantity of recycled material or hazardous waste collected as a result of these programs.

### **Coordination with Other Agencies and Groups**

The County coordinates with the other permittees to maintain the 808-4H2O reporting hotline and to develop outreach materials.

The County contracts with the Sacramento Metro Fire District and City of Sacramento Fire Department to provide emergency response for major hazardous materials spills that cannot be easily handled by the Department of Transportation's Hazmat Team. Coordination is also important in the event of a spill that impacts multiple jurisdictions and/or threatens a major waterway in the Sacramento area.

**Table 3.6-1 – Sacramento County SQIP  
Illicit Discharge Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Legal Authority											
Evaluate/ Amend Stormwater Ordinance	11.a.i		Evaluate ordinance; adopt necessary amendments to provide authority to enforce 2008 stormwater permit requirements.	Confirmation - report revisions in AR			◆				One year following Regional Board approval of SQIP
Reporting of Illicit Discharges and Connections											
Maintain public hotline for reporting of illicit discharges and connections	11.a.ii ; 11.b.v		Maintain hotline at all times	Confirmation/Tabulation - track no. of complaints received through 875-RAIN and CUBS Nuisance Abatement	↔	↔	↔	↔	↔	↔	Reported in AR yearly
Maintain hotline for County crews to report illicit discharges and connections	11.a.ii		Maintain hotline at all times	Confirmation/Tabulation - track no. of reports from County crews received through 874-4SWQ and other mechanisms	↔	↔	↔	↔	↔	↔	Reported in AR yearly, EA due 12/13
Screening for Illicit Connections											
Conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews	11.a.ii ; 11.b.ii		Decrease in no. of illicit connections detected by field screening activities since last permit term	Tabulation - include no. of illicit connections detected by way of field screening activities in AR	↔	↔	↔	↔	↔ 3	↔	Reported in AR yearly, EA due 12/13
Investigations of Illicit Discharges and Connections											
Investigate illicit discharges and connections	11.a.iv ; 11.b.iii		Active non-hazardous illicit discharges/connections investigated within 5 business days of-report. Active hazardous illicit discharges/connections investigated within 1 business day of report	Confirmation - include no. of non-hazardous and hazardous illicit discharge investigations conducted in AR	↔	↔	↔	↔	↔	↔	Reported in AR yearly

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.6-1 – Sacramento County SQIP  
Illicit Discharge Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
	11.a.iii ; 11.b.ii		Reports of illicit connections not actively discharging to the storm drain system and suspected illicit discharges/connections indicated by evaluations of dry weather monitoring data will be investigated within 21 business days	Confirmation - Include no. of illicit connection investigations conducted in AR	↔	↔	↔	↔	↔	↔	Reported in AR yearly
<b>Illicit Discharge and Connection Response, Containment and Cleanup</b>											
Maintain response, containment and cleanup procedures			Maintain response, containment and clean up procedures	Confirmation - report revisions in AR	↔	↔	↔	↔	↔	↔	Reported in AR yearly
Respond to, contain and clean up illicit discharges	11.a.iv ; 11.b.iii	✓	Decrease in no. of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - track no. of illicit discharge responses	↔	↔	↔	↔	↔ 3	↔	Reported in AR yearly, EA due 12/13
Respond to and abate illicit connections	11.a.iii ; 11.b.ii		Decrease in no. of responses and abatements of illicit connections since last permit term	Tabulation - track no. of illicit connections abated	↔	↔	↔	↔	↔ 3	↔	Reported in AR yearly, EA due 12/13
<b>Enforcement</b>											
Maintain Enforcement Policy			Maintain Enforcement Policy	Confirmation - report any formally adopted policy in AR	↔	↔	↔	↔	↔	↔	Reported in AR yearly
Conduct progressive enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in no. of enforcement actions since last permit term	Tabulation - track no. of enforcement actions conducted	↔	↔	↔	↔	↔ 3	↔	Reported in AR yearly, EA due 12/13
<b>Data Management</b>											
Maintain CBSPC database	11.a.v		Maintain CBSPC database	Confirmation - report revisions in AR	↔	↔	↔	↔	↔	↔	Reported in AR yearly
Map the locations of confirmed illicit discharges and connections			Complete map with locations of confirmed illicit discharges and connections; Utilize to help identify areas of targeted outreach	Confirmation - submit map in AR	↔	↔	↔	↔	↔	↔	Reported in AR yearly

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.6-1 – Sacramento County SQIP  
Illicit Discharge Element Work Plan for 2008-2013**

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	FY 08/09	FY 09/10	Schedule				Due Date/ Status/Other
Outreach/Training											
Distribute educational materials to public			Track no. of outreach materials distributed	Confirmation/Tabulation - track no. of outreach materials distributed	↔	↔	↔	↔	↔	↔	Reported in AR yearly
Provide County employee training to field screening and illicit discharge response crews annually	11.b.vi		Track no. of County employees trained	Tabulation - track no. of workshops held, number of people reached	↔	↔	↔	↔	↔	↔	Reported in AR yearly
			Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		2	2	2	2	2	
Facilitation of Proper Household Hazardous Waste Disposal											
Maintain operation of the County's household hazardous waste drop-off centers and curbside used motor oil collection program		✓	Sustained quantities of household hazardous waste and used motor oil collected from public since previous permit term	Tabulation - track amounts of HHW collected at County sites	↔	↔	↔	↔	↔ 3	↔	Reported in AR yearly, EA due 12/13

↔ Ongoing activity/task      ◆ Deliverable or key milestone      2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

## **3.7 Public Outreach Element**

The County's Public Outreach Element tasks are described in Chapter 2, Section 2.6.

## 3.8 New Development Element

The primary mission of the New Development Element is to mitigate urban stormwater impacts associated with new development and redevelopment.

Urbanization and land development can harm Sacramento creeks and rivers in several ways:

- Replacing natural ground with impervious surfaces (such as roofs and pavement) increases the volume and peak flow rate of stormwater runoff. Those changes to hydrology can lead to stream bank erosion, flooding, and habitat impairment.
- Adding impervious surfaces such as parking lots, streets, and roofs increase the temperature of the water discharged to creeks, potentially harming aquatic life.
- Converting land uses from rural to urban increases pollutant load from activities such as automobile and landscape maintenance.

The permit requires the permittees to ensure that new development and redevelopment projects mitigate their stormwater impacts. The County works closely with other permittees to ensure that all permittees approach development mitigation in a consistent way, and the County is in charge of regulating development within the unincorporated areas of the County. Through its development standards, *Stormwater Quality Design Manual for Sacramento and South Placer Regions (Stormwater Quality Design Manual)*, and permit review process, the County ensures that new development and redevelopment projects in the unincorporated areas of the County are designed to mitigate their associated stormwater impacts. The mitigation strategies are discussed in the section on *New Development Strategy*.

To date, the focus of the New Development Element has been on mitigating stormwater quality impacts. However, the new permit contains requirements to also address impacts to runoff volume and rate (hydromodification impacts) where those impacts could cause creek erosion or otherwise harm the creek. The new requirements are discussed in the section on *Activities for the 2008–2013 Term*.

### Pollutants and other Stormwater Impacts Addressed

The New Development Element is designed to reduce development-related pollution, which can include virtually every pollutant commonly found in urban runoff. The type and quantity of pollutants associated with development differ depending on the land use.

#### Pollutants Associated with Various Land Uses

Industrial and commercial sites typically have activities that can affect stormwater quality if not controlled at the source. Runoff from roadways and outdoor parking areas typically contains oil, grease, and total petroleum hydrocarbons from cars, and sediments from air deposition.

Runoff from single-family and multi-family residential land uses typically contains pollutants generated from cars and everyday household activities. For example, landscaping activities can contribute pesticides, herbicides, and phosphorus from



fertilizers into stormwater runoff; home and auto maintenance can also result in illegal dumping of pollutants such as paints, solvents, and used motor oil.

The County encourages developers to select control measures that are most appropriate for the pollutants associated with the planned land use.

### **Pollutants Addressed by Various Control Measures**

Once the pollutants associated with a certain project are identified based on the land use, appropriate stormwater quality measures should be incorporated. Stormwater quality treatment control measures are engineered technologies designed to remove pollutants from site runoff. The treatment control measures are sized and configured using either a volume-based or flow-based design approach. Volume-based measures depend on storage and gravitational settling for pollutant removal (e.g., detention basins, vaults); therefore they are designed for the water quality volume. Flow-based measures are designed for the water quality flow because they depend on filtering the runoff through vegetation and do not require long detention times for pollutant removal (e.g., vegetated swales).

National studies have shown that volume-based treatment control measures such as wet detention basins are effective at reducing total suspended solids (TSS), total and dissolved phosphorus, and total and dissolved metals, including copper and lead. Basins are not designed to remove pesticides, but may result in some removal when pesticides adhere to sediment.

Flow-based treatment control measure such as grassy swales and filter strips have been shown to be effective in reducing TSS, total phosphorus, metals (including copper and lead), and total petroleum hydrocarbons.<sup>1</sup> Coliform results for these devices are highly variable.<sup>2</sup> As with detention basins, these measures may remove some pesticides through sedimentation.

Underground vaults and other types of proprietary devices have varying degrees of predicted removals, depending on the unit and vendor laboratory/field tests. Many are designed to remove litter and coarse sediments, and some of the total metals (e.g., copper and lead) that attach to sediment. They can also reduce oil and grease if they contain oil-absorbing pillows in the first chamber. But most proprietary measures cannot remove fine particulates.

### **Other Stormwater Impacts Addressed by the New Development Element**

Historically, the County of Sacramento and other permittees have sought to control stormwater runoff from urban development in order to protect the quality of the receiving water bodies. In recent years, it became apparent that managing the runoff volume and duration changes caused by new development in ways that prevent/reduce the erosion of these receiving bodies (hydromodification management) is just as important. The US EPA defines hydromodification as: “Alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources.

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<sup>1</sup> American Society of Civil Engineers, National Stormwater Best Management Practices Database, Version 1.0, June 1999.

<sup>2</sup> Municipality of Seattle and Richard Horner, *Biofiltration Swale Performance, Recommendations and Design Considerations* (Publication No. 657), Seattle, Washington, October 5, 1992.

In the case of a stream channel this is the process whereby a stream bank is eroded by flowing water. This typically results in the suspension of sediments in the water course.”

The new permit requires the permittees to address hydromodification. Please refer to Table 3.8-1 for more details on the proposed activities to deal with this requirement.

### **New Development Strategy**

The County seeks to mitigate the potential harmful stormwater impacts from development and redevelopment with the following approach:

- Integrate stormwater quality considerations and requirements as early as possible into the planning, initial site design, and environmental review processes.
- Provide technical guidance and training opportunities and conduct ongoing outreach to the development community.
- Require site design features that help control pollution at its source.
- Require stormwater quality treatment control measures (preferably aboveground, vegetated) that cleanse runoff before it reaches creeks and rivers.
- Adopt quantitative and qualitative development standards to require implementation of Low Impact Development (LID) strategies.

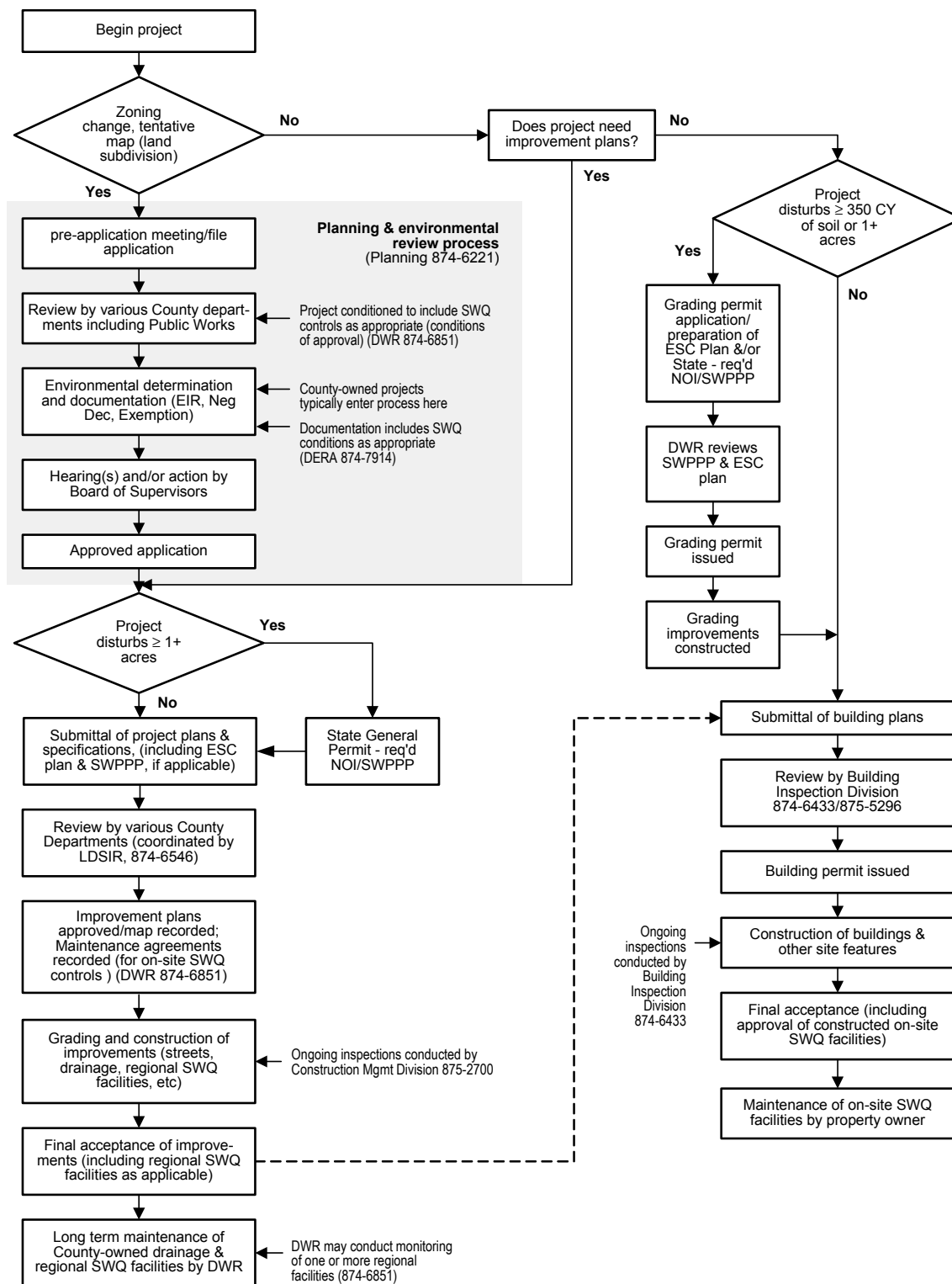
Each of these strategies is explained more in the following paragraphs.

### **Address Stormwater Impacts Early in the Design Process**

The County’s goal is to consider stormwater impacts of proposed projects early in the design process. The planning review processes ensure that the project applicant considers appropriate stormwater quality control methods at the site layout and design stage of development. The County stormwater staff works closely with Planning Department staff and attends regular pre-application meetings hosted by the County planners to educate engineers and developers about stormwater quality requirements. In addition, most development projects are conditioned to include stormwater quality control measures through the environmental review process conducted by the County’s Department of Environmental Review and Assessment (DERA) in conformance with the California Environmental Quality Act (CEQA)

Figure 3.8–1 presents the County’s typical review and approval process for new and redevelopment projects. The flowchart indicates steps in the process where stormwater quality reviews and approvals are required/conducted.

**Figure 3.8–1.**  
**Typical County of Sacramento Development & Review Process**  
*for incorporating Stormwater Quality (SWQ) & Erosion & Sediment Control (ES) Controls*



### **Provide Technical Guidance to the Development Community**

The County provides technical guidance to the development community through the *Stormwater Quality Design Manual*, which was published in May 2007. In addition, information related to development standards and guidance is posted on the joint program web site: [www.sacramentostormwater.org](http://www.sacramentostormwater.org). The County will continue working with other permittees to make information available to the development community about locally-accepted stormwater quality control measures.

### **Control Pollution at Its Source**

This strategy can be one of the most cost-effective ways to protect local creeks and rivers. New development projects can control pollution at its source through site design features that limit contact of pollutants with stormwater runoff. For example, such design features include:

- Designing trash collection areas in commercial and multi-family residential developments to minimize contact of runoff with pollutants.
- Providing a central car wash area for apartment complexes and draining the wash area to the sanitary sewer instead of the storm drain system.
- Applying “No Dumping — Flows to Creek” messages to storm drain inlets to educate the public that dumping pollutants can harm local creeks and rivers.

Refer to the *Stormwater Quality Design Manual* for information on selecting source control measures.

### **Require Stormwater Treatment Control Measures**

Treating runoff is required for projects above certain size thresholds, which vary with respect to project category (please refer to Table 3-2 in the *Stormwater Quality Design Manual*). Treatment control measures are intended to filter and settle pollutants out of runoff before it travels off the site. Information needed to select and size treatment control measures is detailed in the *Stormwater Quality Design Manual*.

### **Require Incorporation of LID Measures**

The *Stormwater Quality Design Manual* encourages the use of LID measures by incorporating runoff reduction and vegetated treatment measures into development projects. Runoff reduction measures, such as permeable pavement and disconnected down spouts, manage runoff close to its source by promoting infiltration by minimizing impervious surfaces. Other runoff reduction measures such as tree canopy interception provide shade (which reduces runoff temperatures) and allow for infiltration and evapotranspiration thus reducing the runoff volume. It is anticipated that these runoff reduction measures will be required as part of the revisions to the development standards to comply with the Stormwater Permit LID requirements.

### **Accomplishments to Date**

Since the inception of the Program in the early 1990s, the County has made significant progress in controlling urban runoff pollution from new development. Among its major accomplishments, the County:

- Prepared and submitted a Development Standards Plan (DSP) on December 1, 2003.
- Within one year of approval of the DSP by the Regional Water Board, adopted development standards in May of 2006 and began applying them to new and redevelopment projects.
- Partnered with the City of Sacramento to develop City/County stormwater quality design standards, including methods for selecting, sizing and configuring water quality detention basins. These standards were in place from 2000 until the new design manual was published in May 2007.
- Partnered with Cities of Sacramento, Folsom, Rancho Cordova, Citrus Heights, Elk Grove, Galt, and Roseville to create the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, first published in draft form in December 2006, updated in February 2007 and finalized in May 2007. This two-year process entailed outreach with the development community and meetings with a newly formed stormwater committee of the local Building Industry Association.
- Amended the California Environmental Quality Act (CEQA) review process to provide additional stormwater quality protection language in July of 2003.
- Added stormwater quality and watershed protection principles to the County General Plan during the 2006–2010 update process.

### **Activities for the 2008–2013 Permit Term**

This section describes the Stormwater Permit requirements applicable to the New Development Element and the activities to be conducted during the 2008–2013 permit term.

#### **Stormwater Permit Requirements**

The Stormwater Permit requires that the permittees regulate new development and redevelopment projects so that they incorporate measures to mitigate associated stormwater quality impacts. In addition, the new permit requires mitigating the hydromodification impacts associated with new development. When development occurs, it increases the volume and rate of runoff and therefore stream flow; these hydromodification impacts, in turn, can cause creek erosion and other harm.

The permit now requires that the permittees develop a plan to mitigate hydromodification impacts associated with new development where the runoff could cause erosion or other harm to the local creeks. This will result in new requirements for some development and redevelopment projects.

In addition, the Stormwater Permit requires the permittees to develop quantitative and qualitative LID standards to require all priority new development and redevelopment projects to incorporate LID measures. The developed criteria will be incorporated into the *Stormwater Quality Design Manual*.

## Overview of Proposed Activities

Table 3.8–1 outlines the activities that will be conducted for the New Development Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following sections describe the major activities in more detail.

## Development-Related Standards, Policies and Codes

The County will continue to periodically evaluate and amend the standards to incorporate new permit requirements during the 2008–13 permit term. The *Stormwater Quality Design Manual* will be revised to incorporate detailed LID criteria and hydromodification mitigation criteria 6 months after the amendment of the development ordinances and standards. The County will convene meetings of the steering committee (which includes representatives from each permittee) periodically during the 2008–13 permit term to update the *Stormwater Quality Design Manual*.

Stormwater quality requirements need to be coordinated with other County and other agency codes and standards (such as those related to tree preservation/landscaping, water conservation, sanitary sewer and solid waste) in order to avoid conflict and overlap. The County stormwater staff will continue to work with the County Planning Department, Department of Transportation and other departments, as well as with outside agencies such as County Sanitation District-1 and Metro Fire District, to evaluate and amend policies and codes for consistency.

The County General Plan is being updated and the final draft is expected to be adopted in winter of 2009. Stormwater quality and watershed protection principles were integrated into the General Plan during the update process. Further updates to the General Plan are not expected during the 2008–13 permit term.

## Waiver Program

The County will work with other permittees to develop a waiver program for development projects where it is demonstrated that installing stormwater quality control measures is not feasible. The owners of projects that qualify for a waiver would pay into an in-lieu fund; the applicable local permitting agency would use the fund to conduct other stormwater quality control programs elsewhere in the affected watershed.

It is anticipated that the waiver program will be used where stormwater requirements conflict with other County objectives, particularly those reflected in “Smart Growth Projects”. There is an inherent conflict between achieving the “Smart Growth” densification objectives and using space on these dense projects for above-ground stormwater conveyance, runoff reduction measures and stormwater quality treatment features. The County will continue to work with other organizations, such as the Sacramento Area Council of Governments (SACOG) to identify and resolve issues between stormwater requirements and Smart Growth objectives.

### **Hydromodification Management Plan (HMP)**

The County will work with other permittees to meet the requirements of the Stormwater Permit with regards to hydromodification management (see the prior section on permit requirements). As a first step, the permittees will determine where the requirements would apply in Sacramento County based on which waterways have the potential for erosion and habitat degradation. For those areas where it is determined that hydromodification management measures apply, geomorphic studies on a representative number of watersheds will be conducted to assess the degree of susceptibility to erosion and degradation. Based on the outcome of those studies, approaches and tools will be recommended for future development and redevelopment projects to retain/detain flows at the specified erosion susceptibility level. Once the requirements are in place, the County will condition projects to comply.

To comply with the permit requirements, the permittees submitted a work plan for the HMP as part of the 04/30/2009 submittal. As part of this submittal, the HMP work plan has been revised to detail the phased approach that the permittees are proposing. Phase 1 of the HMP will include the applicability map and scientific interim mitigation criteria while Phase 2 will include the susceptibility map and the final mitigation criteria. Please refer to Appendix 2B for the revised HMP Work Plan. One year after the Regional Board approves the work plan, the permittees will submit Phase 1 of the HMP document.

### **Treatment Strategies for Roadway Projects**

Roadway projects of five or more acres must include stormwater quality treatment control measures. This is a challenge since few treatment options work for these types of projects, given space constraints and the difficulty in isolating the drainage for a portion of a roadway. The challenge is even greater with public road projects because of safety and maintenance concerns about the treatment control measures. The County stormwater staff will continue to work with the Department of Transportation to identify solutions. It is anticipated that ongoing research results from Caltrans' demonstration projects will help in this effort.

### **Maintenance of Stormwater Quality Control Measures**

The County will continue to evaluate the best approach for educating owners of private treatment control facilities about their maintenance responsibilities.

The County will ensure long-term maintenance of treatment control measures by requiring maintenance covenants to be executed before the approval of the project. Also, the County stormwater staff will require property owners to certify that the treatment measures on their sites are properly maintained. In addition, the County will continue training construction inspectors to ensure proper installation of the treatment control measures. The stormwater staff will periodically review and update the maintenance procedures for publicly owned facilities.

### **Control Measures Effectiveness Studies**

The County will continue to work with other permittees to conduct several studies of the effectiveness of local stormwater control measures and will publish results in the Annual Monitoring Report. See Chapter 2.4 for more details.

### **Outreach to Educate the Development Community**

The Sacramento area development community includes developers, property owners, engineers, landscape architects, architects, environmental specialists, and others who plan and design projects in the public and/or private sectors. The County's effectiveness in reducing stormwater pollution depends on the level of knowledge and understanding this community has regarding mitigation methods and stormwater requirements. The County therefore works collaboratively with the other permittees to share information with the development community and promote consistency across municipal boundaries. The County also provides technical guidance and design support to help the development community comply with stormwater quality requirements.

The permittees post information related to development standards and guidance on the joint program web site: [www.sacramentostormwater.org](http://www.sacramentostormwater.org), and will update that website whenever there is new information to add.

### **Employee Training**

The County conducts ongoing internal education with its various agencies and departments to make sure that staff consistently applies new development policies to private developments as well as to the design of County buildings and facilities.

Each year, stormwater quality staff will continue to train County employees in the Planning, Development Review, and Environmental Review departments regarding stormwater quality requirements.

### **Effectiveness Assessment**

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the New Development Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002–2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008–2013 permit term activities.

Table 3.8-1 presents planned activities for the 2008–13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.8-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Opportunities for improvements to this program element will be identified by evaluating data. Key Indicators have been selected to demonstrate progress towards meeting program or element goals. These indicators, shown on Table 3.8-1, are intended to be specific, measurable, and attainable, and to the extent possible, consistent with the other permittee SQIPs. The key Indicators will be used to assess the effectiveness of individual permittee programs, as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the Stormwater Permit. Evaluations may



result in recommended changes to the planned activities, or other mid-course program refinements.

## **Relationship to Other Program Elements**

The New Development Element relates to other Program elements as follows:

### **Construction Element (Section 3.3)**

The County requires temporary erosion and other pollution controls to be applied during the construction phase of development projects. The County also requires that permanent stormwater-quality control measures be protected from excessive sediment loading. If the permanent facilities are not adequately protected during construction, the County requires that the contractor clean and/or repair them before the new stormwater facilities will be accepted for County ownership. In addition, the County requires engineers to certify in the development submittals that the stormwater-quality control measures on the site were installed properly.

### **Commercial/Industrial Element (Section 3.4)**

The County's requirements for stormwater quality treatment apply to development and redevelopment of commercial and industrial properties/facilities (as well as other types of development). The County's guidance manuals and standards call for selection of control measures best suited for the land use and pollutants anticipated to be present in site runoff.

Finally, through the multi-departmental plan review process for new industrial and commercial facilities, the County ensures that unauthorized non-stormwater flows are directed to the sanitary sewer system or otherwise treated, rather than connected to the storm drain system.

### **Municipal Operations Element (Section 3.5)**

The County owns, operates and maintains the regional detention basins that are constructed to treat runoff from newly developed areas. The County Stormwater Program staff provides facility guidelines and procedures to County maintenance crews for inspection and maintenance. The goal is to ensure that the facilities are operating optimally to remove pollutants from stormwater runoff.

The County makes every effort to include on-site stormwater quality control measures at new County-owned buildings and facilities. The County is responsible for long-term maintenance of those control measures once construction is complete.

### **Illicit Discharge Element (Section 3.6)**

If not properly controlled, accidental or illegal non-stormwater discharges and spills could end up in regional detention basins or on-site stormwater quality control measures. From here, the pollutants could migrate to local creeks and rivers. The County's notification and referral procedures discussed in Section 3.6 would be implemented if spills were to impact a stormwater treatment facility. The County response team would notify the stormwater staff and follow-up investigations would be conducted to verify that receiving waters were not impacted.

Additionally, as noted above for the Commercial/Industrial element, the County's plan review process for newly developing properties ensures that unauthorized non-stormwater flows are plumbed to the sanitary sewer system or otherwise treated, rather than connected to the storm drain system.

### **Public Outreach Element (Section 3.7)**

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to the development community. Public information experts help identify target audiences and associated messages and tools, conduct training and outreach, and collaborate on the design of educational materials.

### **Coordination within the County of Sacramento**

Due to the many phases of project design, approval and construction, coordination within the County of Sacramento is critical to the success of the New Development Element. Coordination is needed to ensure that pollution prevention occurs on County projects as well as those in the private sector.

The stormwater staff within the Department of Water Resources manages the New Development Element. This section coordinates with the following other agencies and departments:

- Municipal Services Agency — Department of Water Resources (Development Review, Design and Maintenance Sections), Department of Transportation (Engineering/Planning Section), Department of Water Quality, Department of County Engineering and Administration, Department of Environmental Review and Assessment, Department of Planning and Community Development.

### **Coordination with Other Agencies and Groups**




As previously explained, the County works closely with the other permittees, especially the City of Sacramento, regarding several New Development Element Activities. Notably, the County works with other permittees to create design criteria and guidance materials, study the effectiveness of stormwater quality treatment control measures, and conduct outreach to the development community. The coordinated approach ensures that the development community is receiving a consistent, uniform message.

Special districts that fall outside the County's jurisdiction and control (e.g., regional transit and fire, water, school, park, and reclamation districts) generally follow different review processes than private projects. It is more difficult to ensure that these projects include stormwater quality controls at the earliest review stage possible, but the County strives to have stormwater quality control measures included on each site. Outreach to and education of these special districts is an important goal.

The County provides information to the development community through several organizations with local Sacramento chapters. These include: the Business Industry Association (BIA), Associated General Contractors of California (AGC), Consulting Engineers and Land Surveyors of California (CELSOC), American Society of Civil Engineers (ASCE), American Institute of Architects (AIA), and American Society of Landscape Architects (ASLA).

**Table 3.8-1 – Sacramento County SQIP  
New Development Element Work Plan for 2008-2013**




Activity/Task	Permit Ref	Key Indicator?	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Update stormwater quality language in the General Plan	13.a, 16		Update applicable sections of the General Plan to include stormwater quality protection principles.	Confirmation – report revisions in AR	↔	↔	↔	↔	↔	↔	
Development of Standards and/or Guidance											
Amend development standards to require LID for development projects	15.b		Amend County regulation/ ordinance to require implementation of LID strategies.	Confirmation - report revisions in AR			◆				6 months after approval of Phase 1 of the HMP.
	15.b, 26		Reflect LID criteria in the updated Stormwater Quality Design Manual.	Confirmation - report revisions in AR				◆			6 months after amending the development standards.
Develop HMP Work plan as part of the revised SQIP.	15.c		Outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	◆	◆					Submitted draft 4/30/09; submitted revision 09/22/09
Develop HMP	15.c		Develop an applicability map showing where hydromodification management measures will apply. Develop interim criteria to comply with the hydromodification requirements.	Confirmation - submit work products to Regional Water Board		↔	◆				1 year after approval of the HMP work plan
			Develop susceptibility map and mitigation measures based on detailed risk analysis	Confirmation - report revisions in AR			↔	↔			12-18 month after approval of Phase 1 of the HMP as funding allows

 Ongoing activity/task
  Deliverable or key milestone
  Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated  
 2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

**Table 3.8-1 – Sacramento County SQIP  
New Development Element Work Plan for 2008-2013**




Activity/Task	Permit Ref	Key Indicator?	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Amend development standards to require hydromodification management for development projects.	15.c, 26		Amend County regulation (interim HMP design criteria based on Phase 1 work)	Confirmation - report revisions in AR			◆				6 months after approval of HMP (Phase 1).
			Reflect hydromodification criteria in the updated Stormwater Quality Design Manual.	Confirmation - report revisions in AR				◆			6 months after amending the development standards
			Amend County regulation and design manual to incorporate final HMP design criteria based on Phase 2 work	Confirmation - report revisions in AR					↔		6 months after finalizing the HMP.
Evaluate need for a mitigation fund	19		Based on need, develop a mitigation fund framework to support regional stormwater projects.	Confirmation – develop framework and submit to regional Board.	↔	↔	↔	↔	↔	↔	
Develop a waiver program	20		Propose a waiver program that would require developers with qualified projects to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible.	Confirmation - develop a waiver program and describe activities in revised SQIP.	↔	↔	↔	◆			
Protect groundwater quality	23		Apply restrictions to the use of structural treatment measures which are designed to function infiltration devices in areas of high ground water table.	Confirmation - identify restrictions and incorporate into the design criteria.	↔	↔	↔	↔	↔	↔	

 Ongoing activity/task
  Deliverable or key milestone
  Effectiveness assessment activity (expected outcome level indicated)

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**Table 3.8-1 – Sacramento County SQIP  
New Development Element Work Plan for 2008-2013**

Activity/Task	Permit	Key	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
	Ref	Indicator?			FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process.	13.b-d, 13.f, 14, 15, 17		Track and record number of projects conditioned.	Tabulation - track no. of projects conditioned and report in Annual Report.	↔	↔	↔	↔	↔	↔	
Condition projects to comply with LID requirements	15.b		Condition priority development projects to incorporate low impact development strategies.	Tabulation – track no. of projects conditioned and report in Annual Report.				◆ ↔	↔	↔	
Condition projects to comply with HMP requirements	15.c		Condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track no. of projects conditioned and report in Annual Report.				◆ ↔	↔	↔	
Develop a database to track priority projects that have been issued a permit to construct treatment control measures.	22		Update database of priority projects	Tabulation - track no. of projects that completed the construction of treatment control measures and report in Annual Reports.	↔	↔	↔	↔	↔	↔	
Condition priority development projects through CEQA to include stormwater quality control measures as applicable.	13.b-d, 13.g, 21		Update list of priority development project conditioned.	Tabulation - track no. of projects conditioned and report in Annual Reports.	↔	↔	↔	↔	↔	↔	

 Ongoing activity/task    
  Deliverable or key milestone    
  Effectiveness assessment activity (expected outcome level indicated)

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New Development Element Work Plan for 2008-2013**




Activity/Task	Permit Ref	Key Indicator?	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
					FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
	13.i	✓	Track the incorporation of stormwater quality measures from the planning phase until completion of project.	Tabulation - compare no. of projects that submitted Pre-Application forms to no. of projects that implemented the stormwater quality measures correctly.	↔	↔	↔	↔	↔	↔ 3	
	13.i	✓	Increase in number of priority projects that correctly incorporated treatment measures.	Tabulation - compare no. of acreage treated to total acreage developed and report in Annual Report.		3	3	3	3	3	
<b>Stormwater Maintenance Agreement</b>											
Verify maintenance of treatment measures	13.b, 13.e, 18		Require development projects to provide verification of maintenance provisions for post-construction structural and treatment control measures.	Tabulation and Confirmation – track no. of executed maintenance agreements and report in Annual Report.	↔	↔	↔	↔	↔	↔	
Require property owners to self-certify the maintenance of the treatment measures on their sites annually			Track number of self certification requests.	Tabulation – track no. of responses to self-certification requests.							
	13.i	✓	Increase awareness of proper maintenance procedures.	Tabulation - track response time to demonstrate proper maintenance.	↔	↔ 3	↔ 3	↔ 3	↔ 3	↔ 3	
	13.i	✓	Ensure proper maintenance of manufactured devices by tracking amount of sediment collected.	Quantification - track volume of sediment removed from manufactured devices.	↔	↔	↔	↔	↔	↔ 4	

↔ Ongoing activity/task    ♦ Deliverable or key milestone    2 Effectiveness assessment activity (expected outcome level indicated)

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New Development Element Work Plan for 2008-2013**

Activity/Task	Permit	Key Indicator?	Performance Standard (Target)	Assessment Method	Schedule						Due Date/ Status/Other
	Ref				FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Outreach and Training											
Conduct outreach to the 24 development community about the latest stormwater quality policies and requirements.			Continue outreach about the Planning and New Development Program Element	Tabulation - track no. of revised/new materials distributed in AR	↔	↔	↔	↔	↔	↔	
	13.i	✓	Increased awareness of stormwater quality requirements and criteria.	Tabulation – estimate raised awareness based on surveys or available research data.	↔	↔	↔ 2	↔ 2	↔ 2	↔ 2	
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to affected staff.	Tabulation – track no. of employees trained and report outcome in the Annual Report.	↔	↔	↔	↔	↔	↔	
	13.i	✓	Increased awareness of targeted employees about stormwater quality requirements as measured by surveys and quizzes.	Tabulation – estimate raised awareness based on surveys/quizzes or available research data.	↔	↔ 2	↔ 2	↔ 2	↔ 2	↔ 2	

 Ongoing activity/task    
  Deliverable or key milestone    
  Effectiveness assessment activity (expected outcome level indicated)

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 2. Assessing effectiveness of performance standards may be limited pending availability of baseline data